

BADGER STATE

Smoke Signals

For Radio Amateurs • By Radio Amateurs

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"The Most Awful Place in the World"



Dave Schmocker, KJ9I, dressed in appropriate attire for early autumn on South Sandwich Island, helps satisfy Deserving DXers in their quest for a new one from VP8SSI.

- Photo courtesy Dave Schmocker/KJ9I

"The most awful place in the world" was the opinion of British explorer Captain James Cook of South Sandwich Island. When he sighted the group of eleven volcanic islands in 1775, he noted extreme winds, snow, cold, and cloudiness with rare moments of sunshine. The islands are in the Scotia Sea, 1,150 miles southeast of the Falkland Islands within the Antarctic pack-ice region. Forming a glacier-covered arc, the islands rise steeply from the icy waters.

Until March and April, 1992, the South Sandwich Island group was the most rare DX country in the world, when a multi-national group of eight intrepid radio amateurs activated the group from Thule Island. The team consisted of Martti Laine, OH2BH; Mas, JE3MAS; Ralph, K0IR; Tony, WA4JQS; Terry, W6MKB; John, W7KNT; Al, WA3YVN; and Dave Schmocker, KJ9I, of Manitowoc, Wisconsin, in the photo above.

VP8SSI was on the air from South Sandwich for fourteen days while the crew lived in absolute isolation. They operated continuously, day and night, on all bands from two meters through 160 meters. Despite the awful conditions, the group netted forty thousand QSOs.

Captain Cook's observations in 1775 proved to be true, as hurricane force winds shredded the team's arctic tents, driving the operators into the ruins of a tiny rescue hut from which the team evicted several seals. Hostile weather and aggressive fur seals challenged the DXpeditioners daily.

Thule Island is the southernmost island in the group. Projecting from Thule's cliffs is a small, exposed peninsula - the only area suitable for landing and camp location. Because of the constant crashing surf, few landings were ever attempted without a helicopter. The Zodiac shore landing was rough and wet. Safe landing operations were accomplished, thanks to the skillful crew of the 106-foot American research vessel, the Abel-J. The crew proudly flew the British flag in celebration of their 40,000 contacts.

The group began their final leg of the journey, 2,200 miles, to South Sandwich from the Falkland Islands, where they made 7,000 QSOs as VP8BZL from several amateur stations there.

Enroute to South Sandwich, a stop at South Georgia produced 5,000 CW and RTTY contacts from two stations, operating as VP8CBA. The stations were set up in an abandoned whaling station.

- Adapted from text by Martti Laine, OH2BH,
Ralph Fedor, K0IR, and Dave Schmocker, KJ9I

Dave will be showing his slides of the DXpedition at the W9DXCC Banquet in Glen Ellyn, Illinois, in September. And, when time permits, he hopes to write a more detailed account for BSSS of the "DXpedition of a lifetime."

Instant Tickets for Foreigners

Plan Would Put Visitors on the Air for 60 Days

The FCC has proposed a streamlined method of licensing foreigners who hold amateur licenses that would put them on the air in the U.S. for 60 days, quickly and with a minimum of paperwork.



On August 6, the Commission formalized the proposal by issuing a Notice of Proposed Rule Making in PR Docket 92-167. The plan would include amateurs from countries with which the U.S. has no reciprocal agreement, and would have volunteer examiners handle the mechanics of the applications.

The FCC proposes to have VEs examine the foreign operator's amateur license and identification credentials, determine the applicant's home operating privileges, then administer a 20-question examination "on those aspects of our (U.S.) rules that are most applicable to the type of operation in which the visitor plans to engage while in the United States."

The FCC suggests that VEs could compile the 20-question examinations from existing question pools maintained by Volunteer Examiner Coordinators.

Upon passing the examination, the foreign applicant would receive a Certificate of Successful Completion of Examination which would serve as proof of a conditional license authorizing operation in the United States, according to the FCC.

The volunteer examiners would then notify their coordinating VEC, who would add the pertinent information on the foreign permittee to a data base that is maintained and forwarded to the FCC on a regular basis. The foreign operator would be allowed one maximum 60-day operating period in the U.S. at any time within 365 days of the issuance of the CSCE.

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ELMER

By Rich Regent, K9GDF



What's Happening

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Edited by Kenneth A. Ebner, K9EN • 822 Wauona Trail • Portage, WI 53901

Swapfests and Other Social Events

SEPTEMBER 19-20, 1992. Peoria Superfest, Peoria, IL. Contact Peoria ARC, P.O. Box 3508, Peoria, IL 61612. (309) 685-6698. (see also ad on back page.)

SAURDAY & SUNDAY, SEPTEMBER 26 & 27. The Chicago FM club will sponsor Radio Expo 92 at the Lake County Fairgrounds, Rts 45 and 12 in Grayslake, IL. VEC testing. Contact: CFMC, PO Box 1532, Evanston, IL 60204. (see ad elsewhere in this issue.)

SUNDAY, OCTOBER 11, 1992. The KMRA 1991 Computer and Ham Radio Swapfest will be held at the Waukesha County Exposition Center, Hwys. J and FT in Waukesha, WI. Contact KMRA Swapfest, P.O. Box 411, Waukesha, WI 53187-0411.

SAURDAY, NOVEMBER 7, 1992. "6.91 Friendly Fest", Serb Hall, 51st & Oklahoma Ave., Milwaukee, WI. Contact: The Milwaukee Repeater Club, P.O. Box 2123, Milwaukee, WI 53201.

SAURDAY, NOVEMBER 7, 1992. Riverland Amateur Radio Club Swapfest at the Onalaska Community Center, 515 Quincy St., Onalaska, WI. \$1.00 donation requested. Tables - Free (first come first served). Contact: Judy Williams, N9LGV, P.O. Box 621, Onalaska, WI 54650. (608) 783-8028.

SUNDAY NOVEMBER 8, 1992. Fox Cities Hamfest 92 presented by the Fox Cities ARC at the Starlite Club, at the corner of state hwy 55 and city JJ. (North of Kaukauna). Amateur License exams (see testpoint). Contact Don Baker, NB9J, 217 Grant St., Little Chute, WI 54140. (414) 687-0572. (also see the ad in next months BSSS).

SAURDAY, NOVEMBER 14, 1992. Fort Wayne, IN Hamfest. Contact AC-ARTS, P.O. Box 10342, Fort Wayne, IN 46851.

SUNDAY, JANUARY 10, 1993. 21st Annual WARAC MIDWINTER swapfest, Waukesha County Expo Center Forum, Waukesha, WI. Contact WARAC Swapfest, P.O. Box 1072, Milwaukee, WI 53201. Please note this will be on a Sunday next year instead of the previous Saturday dates. (see also ad on back page.)

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas. Send information on your event to Kenneth A. Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, contact K9ZZ or K9EN.

Club Meetings



Due to space limitations we cannot always carry the full listing of Wisconsin and area club meetings. Please save the following listings for your future reference. We hope to have the full listing at least three times a year, and will carry any changes or additions between full listings.

BADGER AMATEUR RADIO SOCIETY
(W9YT - U. W. - MADISON)
Monthly while school in session, 2nd Wed., 7:30 p.m. - B-314, Electrical Engineering Bldg.

CENTRAL WISCONSIN RADIO AMATEURS, LTD.
(STEVENS POINT)
Second Wed..

example, if a club meets on the 4th of the month, the material should be sent no later than the 9th of that month. This material is to be sent to the Editor.

Where to Send It

Address changes and corrections should be sent to Ken Ebner.

Editorial material, photographs, feature articles, display ads, and exchange papers should be sent to Jim Romelfanger.

Inquiries about advertising should be directed to Ken Ebner.

Swapfest information should be sent to Ken Ebner. Swapfest ads should be sent to Jim Romelfanger.

Subscriptions should be sent, with check or money order, to Jim Decker.

Conditions for Reprinting Material from Badger State Smoke Signals

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Editorial Disclaimer

The opinions expressed in editorials, guest editorials, columns, articles, and letters from readers are the opinions of the authors only, and do not, unless otherwise stated, express or imply endorsement by *Badger State Smoke Signals*, or by any other individual or organization.

Badger State Smoke Signals

**Amateur Radio
Education and Information**

CHAIRMAN: Kenneth A. Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901. Telephone (608) 742-3560.

EDITOR: Jim Romelfanger, K9ZZ, 412½ Ash Street, Baraboo, WI 53913. Telephone (608) 356-4031.

TREASURER: Jim Decker, WB9UQT, P.O. Box 337, Baraboo, WI 53913-0337.

CONTRIBUTING AUTHOR: Richard R. Regent, K9GDF, 5003 South 26th Street, Milwaukee, WI 53221.

Subscriptions

1 year	(12 issues)	\$9.75
2 years	(24 issues)	\$18.00
3 years	(36 issues)	\$26.00

Special club package reduced rates are available. For information, contact Ken Ebner, K9EN.

When to Send It

The closing date for each issue is the first of the month for the next month's issue. For example, the closing date for the June issue is May 1.

The only exception is for participating clubs. Participating clubs are requested to send their material no later than FIVE DAYS after the club's meeting. For

EAU CLAIRE AMATEUR RADIO CLUB

2nd Tue. - 7:30 p.m. - Parks and Recreation Bldg., Oxford and 1st Streets, Eau Claire. Hams, guests welcome. Travelers welcome on wide area club repeater K9UXP, 146.31/91.

FOUR LAKES AMATEUR RADIO CLUB (MADISON WI)

First and third Tues - 7:30 p.m. - Red Cross Bldg., 4860 Sheboygan Ave., room "C" downstairs. It is the next building west of the Hill Farms State Office building. The meetings start promptly at 7:30 pm.

FOX CITIES AMATEUR RADIO CLUB

Third Mon. - 7:00 p.m. - Roosevelt Jr. High School, 318 E. Brewster St., Appleton. Info: (414) 766-3886.

GREATER MILWAUKEE DX ASSOCIATION

Fourth Mon. of the month at 7:30 p.m. Contact Jerry Scherckenbach, N9AW, at (414) 481-8831 for meeting location.

GREEN BAY MIKE AND KEY CLUB

Second Thur. 7:30 pm - Media Services area of the J. M. Science Building at St. Norbert College in DePere.

GREEN FOX AMATEUR RADIO CLUB

Third Mon. - 7:30 p.m. - Green Lake Town Hall, int. of county hwy. K and N.

KETTLE MORaine RADIO AMATEURS

Second Fri., 7:30 p.m. at the Waukesha County Technical College, Campus Science Building, Room 102. Talk-in on the N9KS 147.39 repeater.

LAKESHORE RPT. ASSN.

Last Tue., Jan., Apr., Jul., & Oct., 7:30 p.m. Red Cross Bldg., 4521 Taylor Ave., Racine, WI.

MADISON AREA REPEATER ASSN

The meeting schedule for 1991 is as follows: Nov. 11.

MANITOWOC COUNTY RADIO AMATEURS

Directors Meeting: First Wed.
General meeting: Second Wed.
Both meetings held at 7:30 p.m. in the basement, Manitowoc City Hall, 817 Franklin ST., Manitowoc.

MENOMONEE FALLS AMATEUR RADIO CLUB

Last Tue. - Doors open 7:30 p.m., meeting begins 8:00 p.m. - Security Savings and Loan, Menomonee Falls. Amateurs and guests welcome.

MILWAUKEE RADIO AMATEURS CLUB

Last Thursday, Wauwatosa Savings and Loan (lower level) at 7500 W. State St. in Wauwatosa. No meetings in July, August and December. Meetings begin at 7:00 pm.

NORTHERN WISCONSIN RADIO CLUB

4th Tue. - 7:30 p.m., Sept. through April. Peppermill Restaurant, Thunderbird Mall North, Menomonee, WI. Guests welcome.

NORTHWOODS ARC (RHINELANDER WI)

Third Tue.. Doors open at 7:00 p.m. Meeting at 7:30 p.m. South Park School, Rhineland, WI. Talk-in on 146.93/.34. All interested visitors to the Northwoods are welcomed.

OZAUKEE RADIO CLUB

Second Wed. - 7:30 p.m. - Saukville Community Center.

QCWA - WISCONSIN CHAPTER #55

Contact Robert Shady, KB9XR, Treasurer, 905 E. Doty Place, Milwaukee, WI, 53207. For information about QCWA Chapter #55. The Wisconsin Chapter holds Spring and Fall dinner meetings.

QOWA - SOUTHEAST WISCONSIN CHAPTER #162
Meets third Mon. monthly, 7:30 p.m., Around
the Clock Restaurant, 3012 Rapids Drive, Racine.

RACINE MEGACYCLE CLUB
Second Mon., 7:30 p.m., Red Cross Bldg.,
4521 Taylor Ave., Racine, WI

RIVERLAND AMATEUR RADIO CLUB
First Tue. - 7:45 p.m. - Onalaska Community
Center, Onalaska WI.

ROCK RIVER RADIO CLUB
Monthly - first Tue. - 7:00 p.m. at Dodge
County Sheriff's Department, 141 N. Main, Ju-
neau, WI.

ARES Net: 146.04/146.64 Mon.s at 7:30 p.m.
Sat.s on 7277 KHz at 10:30 a.m.

SHEBOYGAN COUNTY AMATEUR RADIO CLUB
Second Tue. - 7:00 p.m. - Sheboygan Red
Cross/Boy Scout Bldg., 2032 Erie Ave.

SOUTH MILWAUKEE AMATEUR RADIO CLUB
First Wed. - Legion Post 434, Shepard Ave.,
Oak Creek WI. Auctions in March and October.

TAYLOR COUNTY AREA AMATEUR RADIO CLUB (TCAARC)
MEDFORD

Usually the 2nd Thur. of the month at 7:00
PM sharp. Usual location: emergency government
meeting room, basement of Sheriff's Annex to
Taylor County Courthouse, 2nd and Ogden Sts.,
Medford, WI. Talk-in on 147.75/15 or 145.27(-
600) repeaters. Amateurs & guests are welcome.
ARS Net, Wed. nights at 8:30 PM on 147.75/15.
For info contact: Rolland Walty, W9LEE, W4117
Hwy. 102, Westboro, WI 54490. (715) 427-3492

TRI-COUNTY AMATEUR RADIO CLUB
Sun. of each month. Meetings are held at
7:00 p.m., at the Trinity Lutheran Church, 314
Barrie, Fort Atkinson, WI.

WASHINGTON COUNTY AMATEUR RADIO CLUB
Second Thursday, 7:30 p.m., Washington
County Court House. Net on Thursdays at 7:30
p.m. on 146.73.

WATERTOWN AMATEUR RADIO CLUB
First Thur. of the month at 7:00 p.m., The
Watertown Public Library, 100 S. Water St.,
Watertown, WI.

WAUPACA AMATEUR RADIO CLUB
First Sat. in March, June, September and
December, at 9:30 a.m. at the Waupaca Fire Sta-
tion in downtown Waupaca.

"OQ First Tue." - A social gathering and
dutch treat luncheon at the King's Table in
King, WI, on Highway QQ just south of highways
10 and 54 on the west side of Waupaca.

WEST ALLIS RADIO AMATEUR CLUB
Second Tue. - 8:00 p.m. - St. Peters Epis-
copal Church, 7929 Lincoln Ave. Entrance is at
rear of building on alley.

WISCONSIN ASSOCIATION OF REPEATERS
Meetings are held Quarterly, with time and
location to be announced. Repeater licensees,
trustees, and sponsors are urged to attend
W.A.R. meetings. All interested parties are
welcome, as well.

WISCONSIN VALLEY RADIO ASSOCIATION (WAUSAU)
First Tue. - 7:30 p.m. - Location varies;
info on 146.04/64, Wausau.

YELLOW THUNDER AMATEUR RADIO CLUB (BARABOO)
Days rotate: Scheduled meeting dates:
Thu. Sep. 17, Tue. Oct. 13, Wed. Nov. 18,
Thu. Dec. 10.
All meeting at the Baraboo Civic Center,
Baraboo, WI. Meetings start 7:30 p.m.

Let Badger State Smoke Signals know your
club's meeting dates, and we will let our read-
ers know of your meetings and activities. There
may be Amateurs in your area interested in
joining your club, or members of other clubs
interested in making an interclub visit.

The Test Point



Amateur Radio Examination Locations and Schedules in the Wisconsin Area

The following are known locations where
Amateur Radio license examinations are scheduled
in the Badger State area.

September 7, 1992 Dubuque, IA
September 12, 1992 Madison, WI
September 12, 1992 Marshfield, WI
September 12, 1992 Oak Forest, IL
September 12, 1992 Bloomington, MN
September 15, 1992 Milwaukee, WI (MRAC)
September 15, 1992 St Paul, MN
September 19, 1992 Milwaukee, WI (BE)
September 20, 1992 Des Moines, IA
September 26, 1992 Milwaukee, WI (MRAC)
September 26, 1992 Tomahawk, WI
September 26, 1992 St Paul Park, MN
October 10, 1992 Madison, WI
October 11, 1992 Milwaukee, WI (BE)
October 11, 1992 KMRA Swapfest
October 17, 1992 Medford, WI
October 17, 1992 Eau Claire, WI
October 20, 1992 Milwaukee, WI (MRAC)
October 21, 1992 Milwaukee, WI (MRAC)
October 31, 1992 Milwaukee, WI (MRAC)
November 7, 1992 Menomonie, WI
November 7, 1992 Milwaukee, WI
November 9, 1992 6.91 Friendly Fest
November 9, 1992 Onalaska, WI
November 14, 1992 Madison, WI
November 14, 1992 Fond Du Lac, WI
November 14, 1992 Marshfield, WI
November 17, 1992 Milwaukee, WI (MRAC)
November 21, 1992 Milwaukee, WI (BE)
November 21, 1992 Dubuque, IA
November 28, 1992 Milwaukee, WI (MRAC)
December 5, 1992 Stevens Point, WI
December 12, 1992 Madison, WI
December 15, 1992 Milwaukee, WI (MRAC)
December 19, 1992 Milwaukee, WI (BE)

Monthly, First Sat. Racine, WI
(except January, July & August)
Monthly, Last Sat. Tomahawk, WI
(January thru October only)
Monthly, Third Sat. Loves Park, IL

Many Swapfests/Hamfests offer exam ses-
sions. If not shown above contact the sponsor-
ing club in the Swapfest column on page 2.

GENERAL RULES

FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event
there are changes and/or errors in the dates or
information given.

Most examinations require filing an FCC
Form 610 and advance registration at least 30
days before the exam date. (Some VECs permit
walk-ins. Check with sponsor.)

To register, you must first secure a copy
of the current FCC Form 610 and fill it out com-
pletely (AND CORRECTLY). Get your form from an
FCC Field Office, the ARRL or Badger State Smoke
Signals. Send a 29¢ SASE if you request one
from the ARRL or BSSS. In most cases, forms can
also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for
\$5.40 payable to "ARRL/VEC".

The FCC now requires applicants to show
their original Amateur license to the VEC. A
copy of your license must be attached to your
FCC form 610. You will also be required to have
a photo ID, or other acceptable identification.

Technician class licensees must show proof
of testing before March 21, 1987, in order to
upgrade to General with a code test only.

Additional information is given below.

MILWAUKEE RADIO AMATEURS' CLUB (MRAC/VEC)
TUESDAY DATES: At 6:30 p.m. at church,
11709 West Cleveland Ave., West Allis, WI.

SATURDAY DATES: At 8:30 a.m. in the lower
level of Savings and Loan, 7500 W. State ST.,
Wauwatosa, WI.

For Additional Information Contact; Jack

Krause, W9JK, 1737 N. 116th St., Wauwatosa, WI
53226. (414) 774-6999 or Les Peterson, W9YCV,
9741 W. Howard Ave., Greenfield, WI 53228.
(414) 321-4745.

Bring along your original license and two
(2) good quality photocopies, plus two forms of
identification, such a driver's license, etc.
Also required are a pen and \$5.00 for the exam
fee. WALK-INS are welcome. To register in ad-
vance, use a post card: print the grade of li-
cense you are applying for, and your name, ad-
dress, and telephone number. Send the card to
MRAC/VEC, c/o Jack Krause, W9JK, or Les Peter-
son, W9YCV at the addresses shown above.

BADGER EXAMINERS (BE) - MILWAUKEE

Unless otherwise noted, examinations are
administered beginning at 1:00 p.m. to 3:30 p.m.
at St. Nicholas Church basement, 5345 N. Green
Bay Ave. (2 1/2 blocks south of Silver Spring),
Milwaukee. Walk-ins are welcome. CW waiver forms
are available. Please send a request with an
SASE prior to taking an exam, so it is ready
when attending the session. To register in
advance, send a post card with your name, test
or tests you wish to take, date you wish to
take., your call sign, address and telephone
number to Badger Examiners, Gary J. Sharbuno,
W19M, 5119 W. Willow Rd., Brown Deer, WI 53223.
Telephone (414) 355-0237.

MADISON WI

Monthly, every second Saturday

Exams held at 8:00 a.m. in the Operations
Building of the Madison Metropolitan Sewerage
District, 1610 Moorland Rd. Turn South off
Highway 12 & 18 on South Towne Drive, go 3/4
mile until South Towne Drive becomes Moorland
Rd. Turn right into the treatment plant. Follow
the road to the building with the 160 Ft. tower.
Go in to the first room on the right. For fur-
ther information contact Mark E. Jenks, N29B,
1718 Washington St., Mount Horeb, WI 53572 (608)
832-6631.

EAU CLAIRE, WI

October 17, 1992

Held 9:00 a.m. to 12:00 noon at St. Olaf's
School on the North Lane in Eau Claire, WI.,
near the airport. Contact Carl Searing, W9NW.
(715) 834-1303.

MEDFORD WI - ARRL/VEC

October 17, 1992

Held 8:30 a.m. at the Multi-purpose build-
ing (yellow) located at the Taylor County Fair-
grounds in Medford, WI. From Highway 13 & 64,
turn east on 64 and enter the second driveway on
the north side of the road, across from the Auto
Stop convenience store. Advance reservation
appreciated, but walk-ins accepted. Contact Greg
Garner, WA9W, (715) 453-7096 or Mike Schoenfuss,
N9GHZ, (715) 223-3996, and leave a message with
your name, phone no., and exam element wanted.

FOND DU LAC - (W5YI-VEC)

Saturday, Nov. 14, 1992.

The Fond du Lac County VEs will administer
exams starting promptly at 1:00 pm, please be on
time. Exams are given at the Red Cross Building,
272 N. Main St., Fond du Lac, WI 54935. Please
use the back entrance. Talk-in on 147.09+.
Walk-ins only, no preregistration is needed. For
more info call: Gary Pelletier, KA9QOT (608)
837-3433.

MENOMONIE WI - ARRL/VEC

Saturday: Nov. 7, 1992

The Northern Wisconsin Radio Club sponsors
exams from 9 to 11:30 a.m. at the U. W. Stout
Communications Center, 820 South Broadway,
Menomonie, WI. Use front entrance of building.
Walk-ins are accepted only to extent of available
exam materials.

Contact: Jim Ley, NX9F, (715) 235-3998 (H);
or (715) 232-1397 (O).

MARSHFIELD, WISCONSIN

1992 dates: Sep. 12, Nov 14.

Sponsored by the Marshfield Area ARS.
Second Saturday every other month, at St. Joseph
Hospital, School of Nursing entrance. Room 124.
St. Joseph Ave., Marshfield, WI. Walk-ins Wel-
(continued on page 19)

Wisconsin Nets Association Ltd.

Rob Hummel, WA9ZTY, Secretary • 202 Midvale Drive • Marshall, WI 53559

Section Manager's Notes



Richard R. Regent, K9GDF
5003 South 26th Street
Milwaukee, WI 53221

Quarter Century Wireless Association, Wisconsin Chapter 55, will meet October 3, with a lunch at noon, program and auction at Schmidt Brothers on highway 57 in Hilbert. Visitors and guests are welcome to join in the QCWA fun.

October 11 is the KMRA Fall Ham and Computer Swapfest, at Waukesha County Expo, starts 7 a.m.

Rock River RC will hold its annual tune up at their October 6th meeting.

The Green Bay Mike & Key Club has added DVR to their repeater and are investigating adding emergency power.

K9SAO reports that his son, KA9TVC, is now training in the U.S. Army.

Wisconsin has 2,328 ARRL members out of 8,338 licensed amateurs. Thanks for the support.

Exams: October 3 Racine NW9P; October 5

Wisconsin Nets

Net	WNA	Freq.	UTC	CDT	Mgr.
BWN	Yes	3984	1100	0600	W9AYK
BEN	Yes	3985	1700	1200	KE9VU
WSBN	Yes	3985	2230	1730	K9UTQ
WNN	Yes	3723	2300	1800	KA9FVX
WSSN	Yes	3645	2330	1830	N9BDL
WIN/E	Yes	3662	0000	1900	WB9ICH
WIN/L	Yes	3662	0300	2200	W9NGP
NWTFN	Yes	34/94	2330	1830	NS9Q

(Rhinelander area)

RCRA	No	01/61	2330	1830	KA9OMC
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(Mondays CST) (Menomonee Area)

Gr. Bay	No	72/12	0145	2045	WB9NRK
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(Green Bay Area)

ARES	No	4.65/5.25	0100	2000	
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(South East/South Central Wisconsin)

RACES	No	3993.5	1300	0800	WA9OAY
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(LSB Sunday)

Green Bay Larry Siebers; October 10 Madison Mark Jenks; October 10 Ashland Dale Ristrom; October 11 Milwaukee at KMRA Swapfest; October 20, 21 and 31 Milwaukee MRAC; October 31 Tomahawk WA9W.

Sorry to report Silent Key W9FAD at 83 years old.

1993-1994 Net Directory

The past few editions of the Net Directory were produced by requesting changes from the field to existing net information as it appeared in the previous edition. For the 1993-1994 edition will be put together from scratch by soliciting all new information from net managers on a Net Registration Card. These cards, Form FSD-85, which can be used to list your net, are available from our Section Traffic Manager K9KSA. This is your opportunity to get your net properly listed. The registration deadline is September 15th.

- Richard Regent, K9GDF

Wisconsin SEC John Leekley, WB9SMM, Moves

Our Section Emergency Coordinator, John D. Leekley, WB9SMM, has moved to a different part of Menomonee Falls. His new address is W148 N7590 Woodland Drive, Menomonee Falls, WI 53051 with the same telephone number.

John would like to hear from volunteers in counties that need Emergency Coordinators or get feedback information about communications in your area.

- Richard Regent, K9GDF

FCC Issues NPRM to Amend Permitted Communications

The Federal Communications Commission has released its Notice of Proposed Rule Making in PR Docket 92-136, which if adopted would change the Commission's rules to give amateurs greater flexibility in providing communications for public service activities such as parades, fairs, and races, as well as for certain personal communications.

The NPRM closely follows suggestions made by the American Radio Relay League to the FCC early this year.

ARRL Executive Vice-President David Sumner, K1ZZ, commenting on the proposals, said, "We believe the FCC's proposal, if adopted, will go a long way toward removing the cloud of uncertainty that now shadows many meritorious amateur public service activities."

The changes would revise FCC Rules Part 97.113 to read as follows:

"97.113 Prohibited transmissions.

(a) No amateur station shall transmit:

(1) Communications for hire or material compensation, direct or indirect, paid or promised, except as otherwise provided in these rules;

(2) Communications in which the station licensee or control operator have a pecuniary interest, including communications on behalf of an employer. Amateur operators may, however, notify other amateurs of the availability for sale or trade, of apparatus normally used in an amateur station, provided that such activity is not conducted on a regular basis;

(3) Music; Communications intended to facilitate a criminal act; Messages in codes or ciphers intended to obscure the meaning thereof, except as otherwise provided herein; Obscene, indecent, or profane words or language; or false or deceptive messages, signals or identification;

(4) Communications, on a regular basis, which could reasonably be furnished alternatively through other radio services."

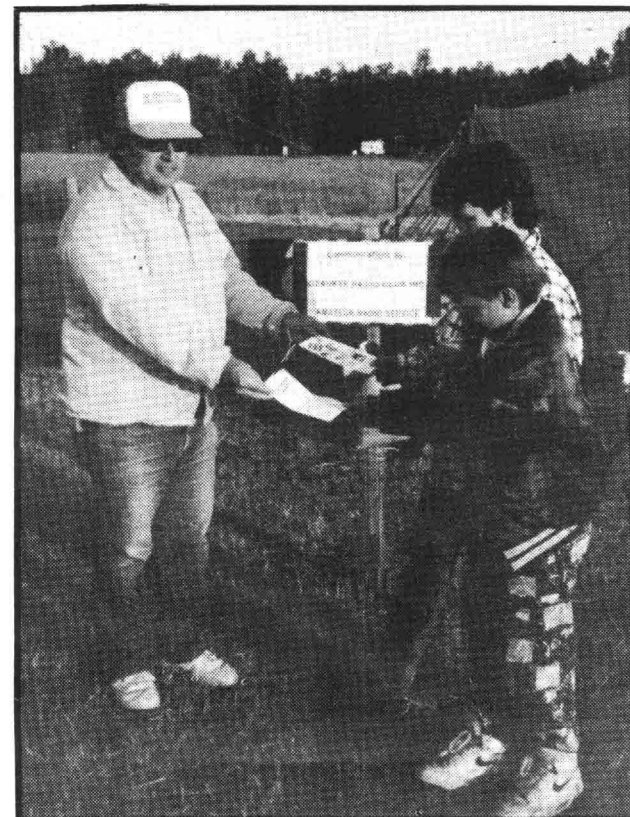
Changes to part(b) would continue the ban on "broadcasting"; allow teachers more freedom to use Amateur Radio in their classrooms; and increase the types of transmissions permitted to be retransmitted by amateurs (such as communications from space shuttles, propagation, and weather information.)

The deadline for comments in PR Docket 92-136 is October 1, 1992; deadline for reply comments is December 1, 1992.

The full text of the NPRM will appear in September QST.

- The ARRL Letter, 7/13/92

Field Day: A Great Time to Tell the Public What Ham Radio is all About!



Skip Douglas, KA9DDN, at left, readies the public relations post at the Field Day site of the Ozaukee Radio Club. Field Day presents one of the best opportunities of the year to explain to the visiting public what Amateur Radio is. It's a great chance to recruit new amateurs, and to promote your club, too. With Skip are his son Aaron and Jason Raash, N9NNB.

- Photo courtesy Gary Sharbuno/WI9M

Section Manager Field Day Bonus Messages

Thanks to all who participated in Field Day, 1992. The message originations in these columns reached their destination of the Section Manager.

Group	Call	Location	Ops/ARES
W/K ARC	N9AW	Oak Creek	17/5
Riverland	?	La Crosse	26/20
Non-club	N9AU	Waupun	5/0
Ozaukee Radio Club	WI9M	Lazy Days Campground	22/13
Washington County ARC	AA9E	St. Lawrence	12/7
Calumet ARC	KN9P	Ledgepark, Chilton	7/6
Northwest ARC	NS9Q	Nicolet College	17/17
ACP Skunk	WA9PWP	Cross Plains	4/3
West Allis RAC	W9FK	Crystal Ridge	12/3
Waterloo AR	N9HR	Richwood	10/10
Waupaca ARC	N9HDA	Iola	12/10
Menomonee Falls	K9RHH	Germantown	12/10

- Richard Regent, K9GDF, Section Manager, Wisconsin Section ARRL, Milwaukee, WI

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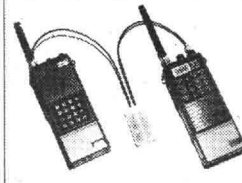
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Zip Your Radiograms

Rumor heard that a certain regional net requires zip codes on all messages so they can be put on packet radio. Maybe we could glue a quarter to each message to help pay for a delivery phone call too?

- Rich Regent, K9GDF

Wisconsin Scores in QCWA Contests

QCWA contest results show 8 CW and 7 Phone calls of operators from Wisconsin in the listings. They are CW: W2WOE, W9RF, W9DU, N9EAY, W9KKM, W9YCV, W9GIL and W9ODV.

Operators in the Phone weekend were: W9ODV, W9NVK, W9RF, W0WLN, W9ODV, W9YCV and WA9Y.

- Rich Regent, K9GDF

Memories of W9AC

Bill Halligan, W9AC, died July 14 at the age of 93. Bill founded Hallicrafters, an Amateur Radio equipment company especially noted for its receivers, in 1933.

My wife and I were fortunate to chat with Bill at the ARRL Central Division Convention Dinner in Milwaukee in 1976. Bill had asked if he could join us at our table, we're glad he did.

- Rich Regent, K9GDF

Ken Makes DX Easy

Ken Ebner, K9EN, was on 20-meter CW and SSB to work Albania and Surinam, his only DX contacts in the last six years. Ken intends to be more active if DX is so easy to get these days.

- Rich Regent, K9GDF

Milwaukee Amateur Wins \$50K

Robert Becker, a radio amateur in Milwaukee, won \$50,000 on the Wisconsin Lottery's Money Game television show recently. Since we are not one hundred percent certain what his call sign is, we are not publishing it here. The lottery office had told us by telephone that they would send us a publicity photo to publish, but none was received. We congratulate Bob on his win.

- K9ZZ

Wausau Ham Wins AEA Award for "Dream Flight Wausau" Work

Dr. Frederick Prehn, WX9W, of Wausau, has been named the seventh recipient of Advanced Electronics Applications' Amateur Ambassador Award for having demonstrated "truly outstanding performance in three areas we use as our selection criteria: Dedication to Amateur Radio, Positive influence on those outside the amateur service, (and) Initiation of special projects or programs to promote Amateur Radio."

A letter to Prehn from AEA President Rod Proctor, N7UDD, says, in part, "Dream Flight Wausau was a masterpiece of planning and execution. It showcased all areas of Amateur Radio to a group of young people that will hopefully get excited about science and technology. This is the time to infect our young people with the positive aspects of science."

AEA awarded WX9W air fare to the American Radio Relay League's National Convention in Los Angeles in August. The award also includes accommodations, meals, and \$1000.00 in cash.

- WVRA Newsletter, 8/1/92

West Allis Club Honored for 25 Years of ARRL Affiliation



Richard Regent, K9GDF, at left, Section Manager of the Wisconsin Section of the American Radio Relay League, presents a 25-year ARRL Affiliated Club certificate to West Allis Radio Amateur Club President Ron Hooker, K9WTF, during a recent club meeting.

- Photo by Les Peterson/W9YCV

Minnesota Broadcasting Museum Offers Much to See, Learn

The Pavek Museum of Broadcasting in St. Louis Park, MN has a lot to see, according to a flyer passed along to BSSS by Mike Schoenfuss, N9-GHZ, from Ernie Mehner, WD9FWP.

The museum has on display these "firsts": Edison phonograph, Berliner flat disk, phonograph, television receiver, radio set, transistor radio, vacuum tube, tape recorder, floppy disk, and microphone. Also shown are crystal sets, World War I aircraft systems and ship to shore communications systems, spark transmitters similar to those which sent the SOS from the Titanic, information about sound recording from Edison's tin foil phonograph to multi-track tape, and more.

The museum offers sponsors use of a research library and use of equipment to duplicate wire recordings, 16" transcriptions, and reel to reel tape onto cassette, by appointment.

Museum hours are 10 a.m. to 6 p.m. Tuesday through Friday, and 9 a.m. to 5 p.m. on Saturdays. Admission is \$2.00; and \$1.00 for seniors and children. Group tours can be arranged by appointment, and events can be scheduled during evening and weekends.

Information about the museum and sponsorships is available from the Pavek Museum of Broadcasting, 3515-17 Raleigh Avenue, St. Louis Park, MN 55416. Telephone (612) 926-8198.

New Amateur Satellite in Orbit

Amateur Radio's newest satellite is in orbit. KITSAT-OSCAR 23 lifted off from Kourou, French Guiana on August 10th aboard an Ariane 42P rocket, and was successfully deployed 30 minutes later.

Ground control stations are testing the satellite's systems and uploading software, and controllers report that the satellite should be ready for use in a few weeks. KITSAT-OSCAR 23 is very similar in function to UOSAT-OSCAR 22. It will provide packet store-and-forward capability at 9600 bits per second, enhancing worldwide packet communications.

The satellite also features two CCD video cameras, one of which will offer close-up views of the Earth. Camera images will be stored as data files for downloading and display.

KITSAT-OSCAR 23 frequencies are: Uplink, 145.850 MHz and 145.900 MHz, and Downlink, 435.175 MHz.

(ARRL Headquarters station) W1AW will transmit KITSAT-OSCAR 23 orbital elements and additional information as it becomes available.

- ARRL Bulletin 74, 8/17/92

YOUR SUBSCRIPTION TO BADGER STATE
SMOKE SIGNALS WOULD BE APPRECIATED!
PLEASE USE THE FORM BELOW.

Beam Me Up, Terry!

Radio Amateurs all over the country have probably heard the ham station aboard the Amateur Electronic Supply Starship on the VHF bands. Here, Les Peterson, W9YCV, stands AES Starship 1 before boarding for a "free" flight around the Milwaukee area. The flight took place June 20 during Yaesu days at AES World Headquarters in Milwaukee. Les operated 2-meter FM simplex during the flight.

- Photo by Les Peterson/W9YCV



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9209

WARBA Balloon Flies High

By Steve Loeffler, WB9ZRE

123 West Oshkosh Street, Ripon, WI 54971

The Wisconsin Amateur Radio Balloon Association's high-altitude balloon flight to more than 110,000 feet was successfully launched from Hillsboro, Wisconsin at 1530 UTC on Saturday, June 20. The launch crew, consisting of Joe Mayenschein, WB9SBD (project leader), Tim Tomljanovich, K9SB, Chris Mayenschein, KB9FGZ, and Brian Young, KA9QJT, arrived at the launch site southeast of Hillsboro at 1300 UTC to prepare the package and inflate the TA-1000 weather balloon. Additional launch personnel, Linda Mayenschein, KA9CHM; Terry Pliner, N9OUE; Brian Holm, N9NBL; Paul Olsen; Duane Grotophorst, KA9HKL; and Brian Skrentny, N9LOO, arrived at the site to set up ground communications, net control stations, videotape ground operations, and prepare to track the balloon.

A flight profile update was received from Bill Brown, WB8ELK, in Findlay, Ohio, estimating that the balloon would land 70 miles from the launch site at 139 degrees magnetic, based on National Weather Service data on winds aloft. Visibility was near perfect.

The flight package was tested, and a problem was diagnosed in the 446 MHz transmitter. Thirty minutes of troubleshooting failed to identify the source of the RF unlocking the PLL circuit, and the transmitter was reluctantly removed from the flight package.

Moderate winds at ground level during launch provided ground personnel with excitement as the balloon threatened to burst due to stressing. The balloon system rose gracefully into the sky and disappeared from launch crew view within twenty minutes.

Several stations receiving the live video feed were able to identify lake and river landmarks, which was a big help in pinpointing the balloon's true position aloft.

Chase crews, consisting of Jim Kalrath, N9KAN; Brian Holm, N9NBL; Dave Mullenix, N9LTD; Brian Spangenberg, N9LOM; Pete Ives, AA9AD; and Steve Loeffler, WB9ZRE, triangulated the balloon's position from four mobile tracking systems and coordinated their findings with Linda, KA9CHM, at the launch site.

At 1730 UTC, Linda announced that the launch team had witnessed, via the on-board video camera, the balloon burst at about 110,000 feet. The package was now plunging to 60,000 feet, where air resistance would allow the 10-foot parachute to deploy.

Madison-area amateurs reported beam headings of the descending package, greatly adding to the accuracy of the flight path. At approximately 1825 UTC, all stations reported a complete loss of the UHF video signal, indicating that the package was on the ground. Chase crews closed in on the estimated landing area and were rewarded with a weak video signal - perfect for locating the package.

Within fifteen minutes, the chase teams narrowed the search area to a 1/2- by 1/4-mile block of farm land. The package had originally landed in a tree line between two fields, had been blown free, and had come to rest in a cornfield belonging to Robert Meters (Mayhaven Farms), four miles west of Stoughton, Wisconsin, 1/4 mile north of Highway 138. The flight's length was 75 miles.

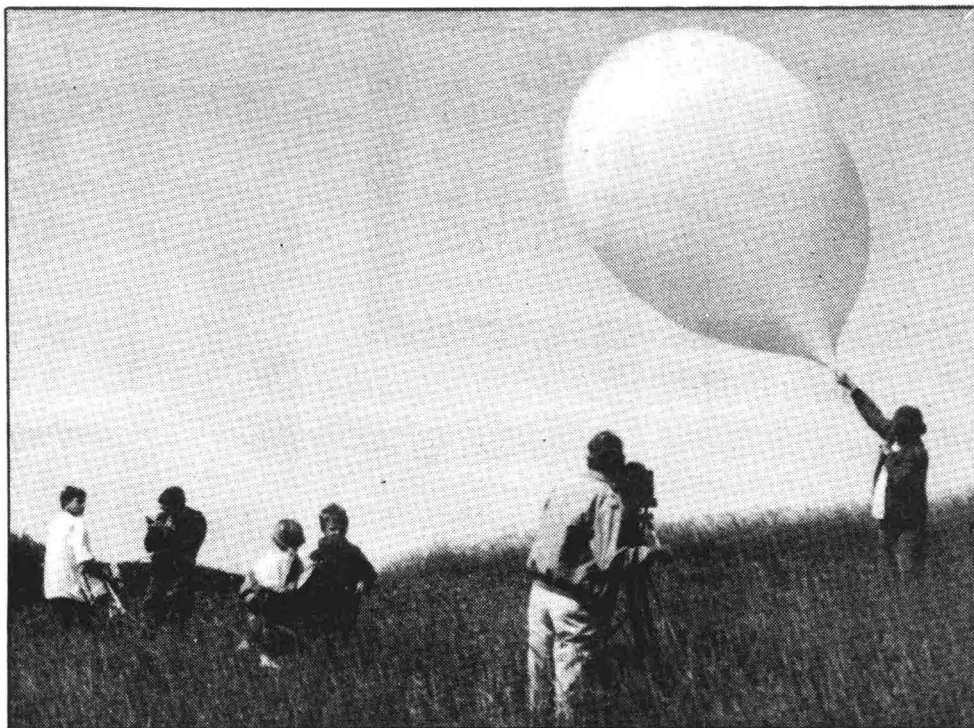
The balloon was recovered by the chase/recovery teams forty minutes later. The long recovery time was the result of chase crew members having to ford a 12-foot wide, 8-foot deep drainage canal running the length of the field.

Amateurs as far away as New Hampshire reported hearing the balloon's telemetry. The farthest confirmed repeater contact was made from Findlay, Ohio.

The payload on this flight consisted of an amateur television transmitter sending live video from an on-board camera. The camera view could be rotated for viewing a "down" view of the earth below, a "side" view of the horizon, and an "up" view to see the balloon and parachute system. The launch team reported a spectacular view of the balloon bursting at about 110,000 feet as the video camera was looking up!

In addition to the video, a 35mm camera took 24 exposures at ten-minute intervals during the flight. This camera was mounted in the payload to take pictures of the horizon. An on-board X-ray sensor was added to determine the amount of exposure the package received at altitude during the flight. In addition, a crossband 2-meter to 70cm repeater allowed participation by amateurs operators throughout the central United States.

The video from the flight is being edited with the pre-launch, launch, and recovery video. The 35mm film has been developed, yielding ten aerial pictures.



Out standing in their field - The WARBA launch team makes ready for the release of the TA-1000 weather balloon with its Amateur Radio package and other electronics on June 20. A videographer, near center frame, records the launch preparations and the balloon's release, at the beginning of another very successful flight.



The view at 65,000 feet - This is one of the photos taken by the 35mm camera in the flight package. Note the darker sky at the top of the frame. Things look considerably different at this altitude, usually including the way color photos look. That is due to the much lower degree of filtering of ultraviolet light by the atmosphere. - Photos courtesy of Joe Mayenschein/WB9SBD

The X-ray report showed negligible radiation exposure to the package at high altitude.

This was the fourth balloon launched by the WARBA group, and the second video flight. Another balloon is likely to be launched later this summer, tentatively in mid-September. The WARBA group is investigating the possibility of a packet radio robot flight later this year or early next year.

If you are interested in joining the fun, you can contact WARBA, Route 1, Box A, Hillsboro, WI 54634. □

Special thanks go to the Central Wisconsin Repeater Association (CWRA) for the use of the Baraboo repeater (146.28/.88) for setup, tracking, and search communications during all of WARBA's flights.

Also, many thanks to all of the amateurs who assisted in tracking the balloon on its flight over Wisconsin, and apologies to anyone that I might have forgotten to credit for their unselfish contributions to the flight.

- Steve Loeffler, WB9ZRE

Unlicensed Washington State Man Fined \$10,000 for 2 Meter Repeater Operation, Transmitting Threats

A Washington state man faces a fine of 10,000 dollars for operating on a 2-meter amateur repeater without a license, and for transmitting profanity and threats thereon.

On July 9, the Federal Communications Commission issued a Notice of Apparent Liability to one Gino A. Turrella, of Kent, Washington, a non-amateur and the target of what the Commission called "numerous complaints" for transmitting profane language and making threats "on various Amateur Radio repeater stations throughout western Washington."

The FCC's Kirkland, Washington Field Office said that on two occasions in September and November, 1991, it observed Turrella operating a

radio transmitter in his pick-up truck "simultaneously when radio transmissions consisting of profane language were observed on 144.73 MHz."

Citing Turrella for "willful" violations of Section 301 Communications Act, the FCC held Turrella liable for a 10,000 dollar monetary forfeiture, 2,000 dollars more than its "base" amount of 8,000 dollars for unlicensed operation because the transmissions were repeated and "consisted of profanity and threats."

Turrella has 30 days to respond either by paying the fine or by sending a "detailed rebuttal statement of facts and reasons" to the Commission.

September WARBA Balloon Flight Set

The Wisconsin Amateur Radio Balloon Association (WARBA) has scheduled its next flight for September 19 or 20. The exact launch time is not yet known. The balloon will carry a dual-band and cross-band audio repeater on 2 meters and 440 MHz, using all commercial-grade equipment. If you are capable of operating only one of the two bands, you will still be able to operate through the balloon-carried systems. If winds permit, this may be an all-day flight. More details will be posted on the packet BBS systems and announced on the various swap nets as the launch day nears.

- Joe Mayenschein/WB9SBD

Identifying Junk Box Baluns

By John W. Frank, WB9TQG
P.O. Box 5003
Madison, WI 53705.

There I was, dangling from the tower as my wife LaVonne, AC9J, and my neighbor Eduardo, KA9YIT, tuned across the 40-meter band, searching for the resonant frequency of the antenna I was prepared to adjust. The problem was that there didn't seem to be a resonant frequency anywhere in the band. The SWR was about 4:1 all across the band. I knew the antenna had the proper dimensions and the coax cable was good. The problem seemed to be in the balun. Further investigation using a noise bridge, and later a homebrew antennascope, showed that there was a frequency where the antenna should have been resonant, but the impedance was only a fraction of what we had expected. Again, everything pointed to the balun. The problem turned out to be that I had grabbed a balun out of my junkbox and it had a 4:1 ratio, instead of a 1:1 ratio.

I must point out that you can't check the ratio of a balun with an ohmmeter. The wire in a balun has a very low DC resistance, and will show continuity between all the input and output terminals. If a balun is burned out and has turned into an open circuit, you can check that with an ohmmeter. But, you can't check the ratio with an ohmmeter.

However, there are two ways that I know of to check the impedance ratio of a balun. The first involves the use of an R-X noise bridge. Connect a non-inductive resistor of known value across the balanced terminals of the balun. Then, connect the unbalanced terminals of the balun to the "unknown" terminals of the noise bridge through the shortest possible length of cable. With my equipment, I used an Amphenol 83-877 adapter to go between the SO-239 connector on the balun and the SO-239 on the noise bridge. After the resistor, the balun, the noise bridge, and a receiver are connected as shown in figure one, follow the instructions for the noise bridge and measure the impedance at the unknown terminals. Finally, divide the resistance of the non-inductive resistor by the measured impedance at the unknown terminals of the noise bridge. The result of that division is the impedance ratio of the balun.

The results may not be an integer because of minor inaccuracies in the noise bridge knobs or

the exact value of the non-inductive resistor. For example, I used a 220Ω resistor and measured slightly over 50Ω at the terminals of the noise bridge. The junkbox balun I had put in the antenna had a 4:1 ratio instead of the correct 1:1 ratio.

To confirm my diagnosis, I used my homebrew antennascope and a solid-state dip meter, as shown in figure two. With the dip meter tuned to the 40-meter band and inductively coupled to the antennascope through a loop of wire, I adjusted the antennascope for a null on the meter. (When using the dip meter as a signal source for the antennascope, adjust the knob on the antennascope for a null on the antennascope meter, *not a null on the meter in the dip meter*. Got that?) The null on the antennascope meter

corresponded to a load of about 50Ω. Dividing 220 by 50 confirmed that I had mistakenly used a 4:1 balun.

Back to the junkbox, I found another balun and put a 50Ω non-inductive resistor across the output terminals. Connecting this balun to the noise bridge as shown in figure one, the null was now at X=0 and R=50Ω. This indicated it was a 1:1 balun. I installed it at the antenna, and the SWR was predictably low. Before putting the other balun back in the junkbox, I scrawled 4:1 on it with a Crayola.

Information about how to homebrew an R-X noise bridge and/or an antennascope is in chapter 26 of the 23rd edition of the *Radio Handbook*, edited by Bill Orr, W6SAI, and published by Howard W. Sams and Company. □

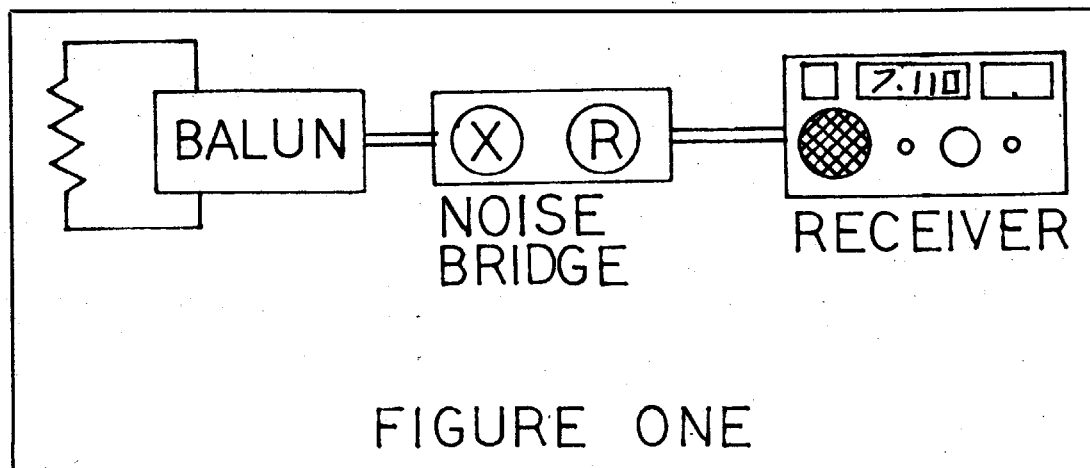


FIGURE ONE

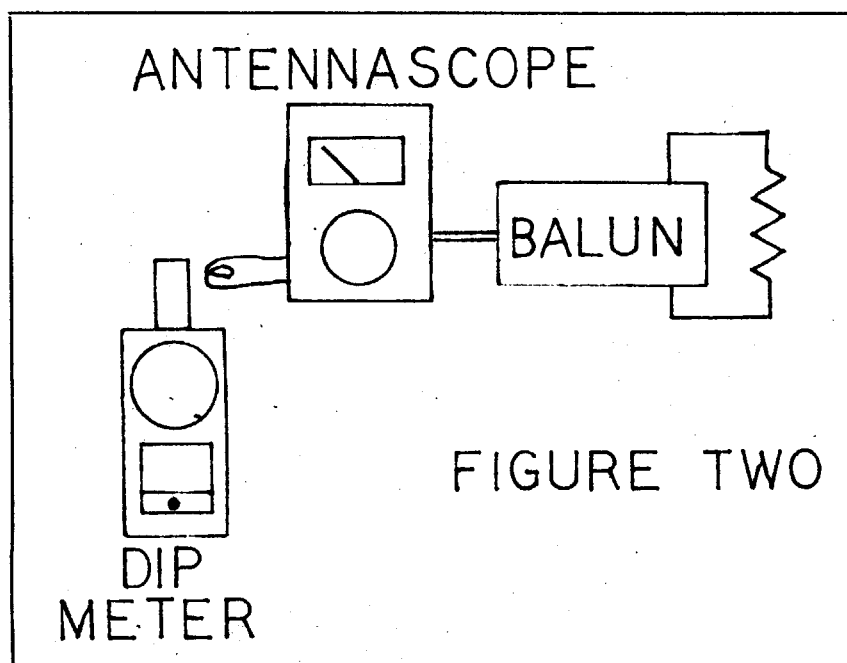


FIGURE TWO

An ARRL Sanctioned
Hamfest



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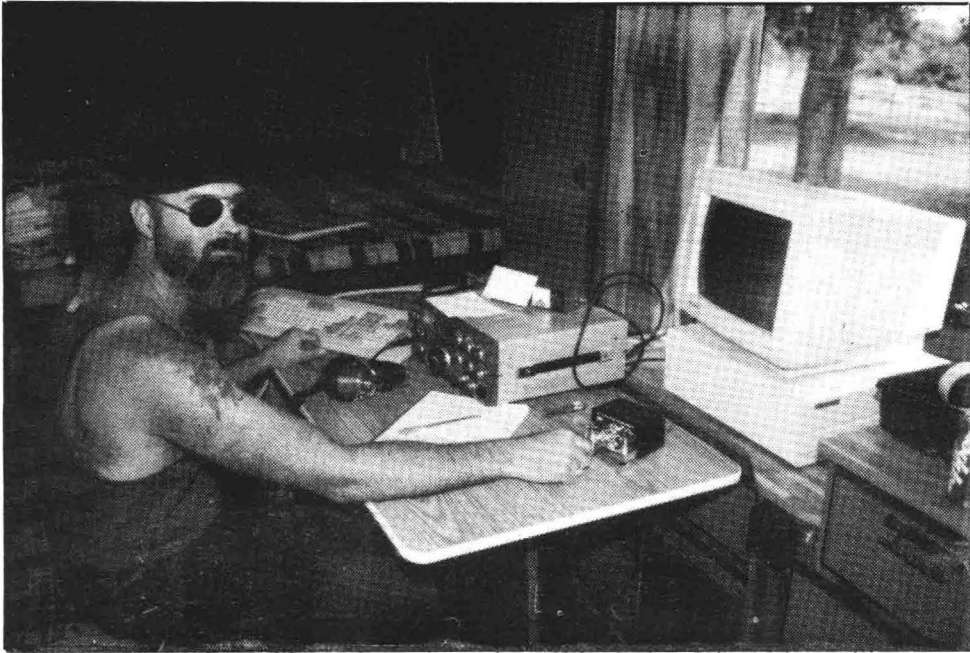
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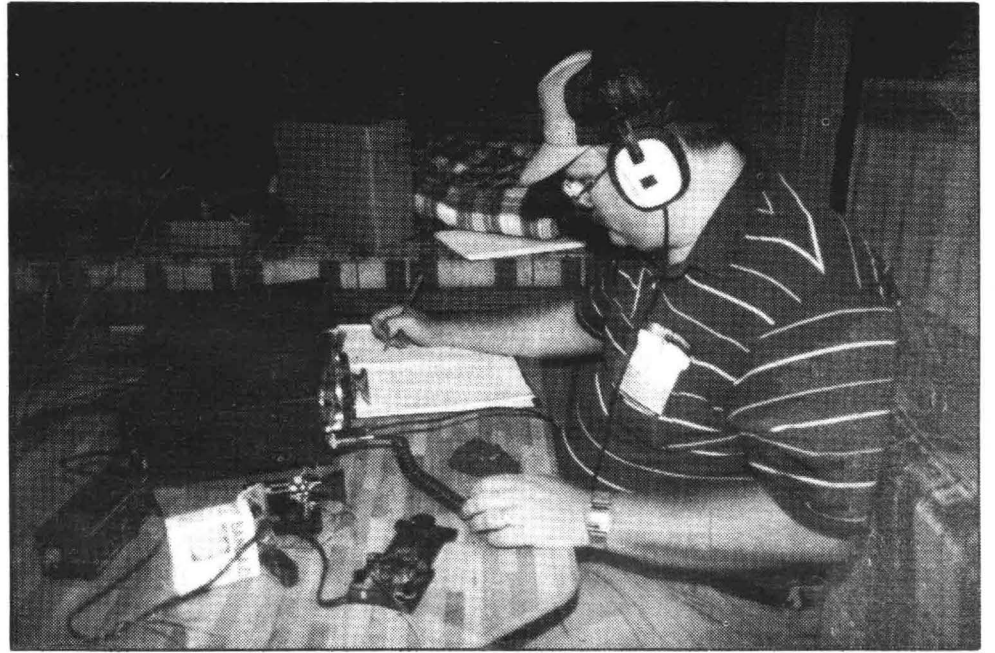
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Field Day 1992 • Yellow Thunder Amateur Radio Club • WB9FDZ

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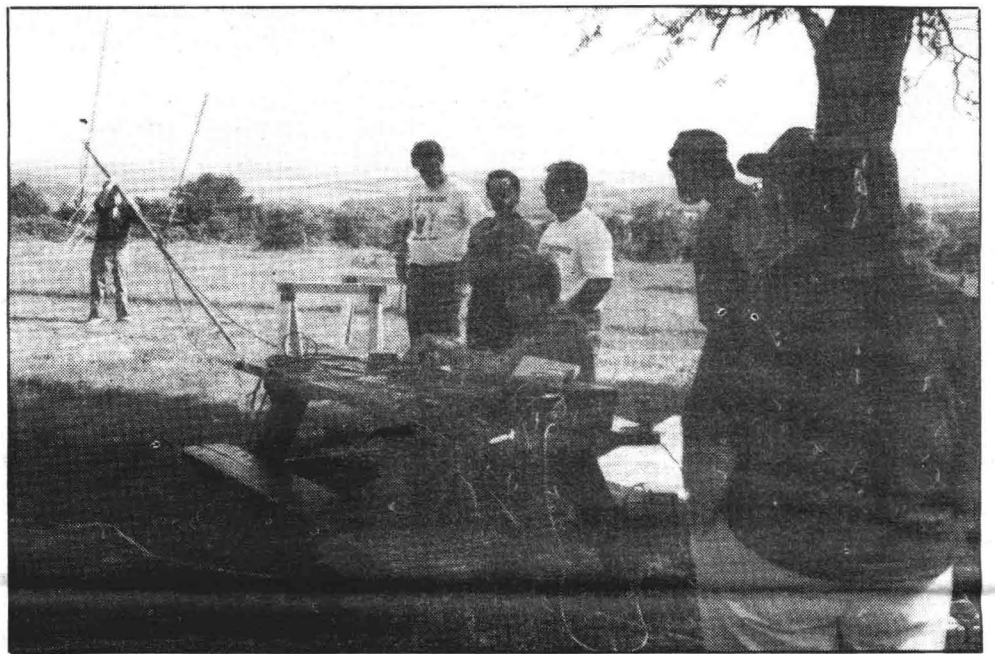
Bob Sauvin, WT9Q, operated some nice, sweet high-speed CW on 20 meters from a comfortable location in a camper.



From that same comfy QTH, Steve Schwoegler, WB9RNL, held forth on 15 meter SSB, and made a nice pile of contacts.



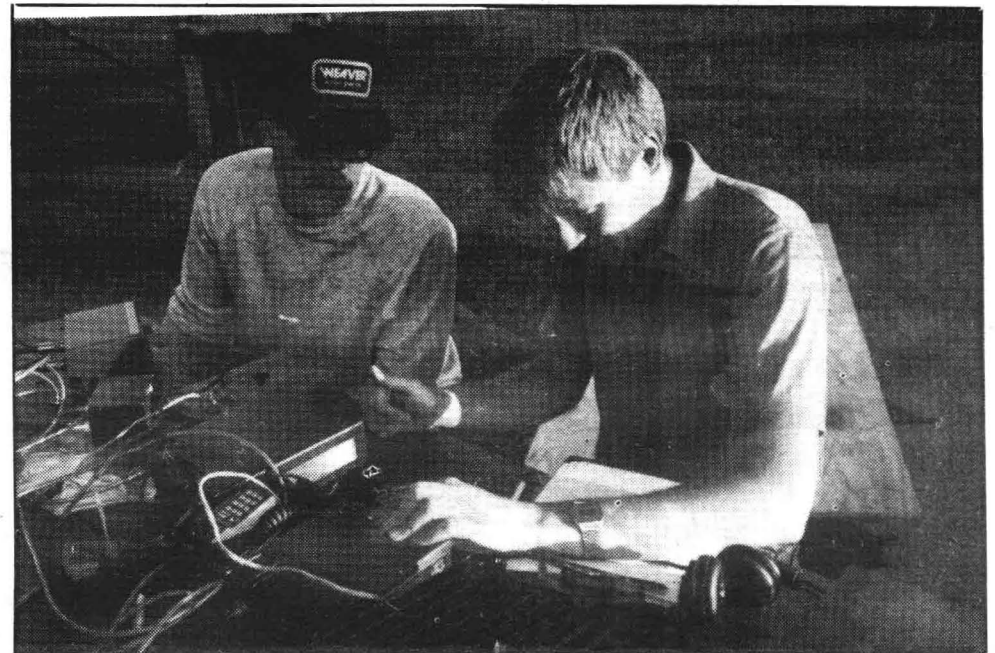
The Novice station was set up and operated by Joey Sweeney, KB9ERR, of Portage, wearing a cap. That's his brother Denny seated next to him. The Sweeneys also supplied the always-necessary charcoal grill.



A large crowd gathered as Duane Grotophorst, KA9HKL, seated, listened for his signals coming back from ASMAT-OSCAR 13. In spite of extremely high noise from a nearby power line, several AO-13 contacts were made.



Harry Westlund, K9EHJ, did an outdoor operating stint on ten meters. The club put forth an excellent effort, indeed.



Duane Grotophorst, KA9HKL, at right, listens intently through the power line racket for his downlink signals from AO-13.

Printing Problems = Field Day Photo Re-Runs

Our printer had chemistry problems when he processed the printing plates for our August issue, resulting in poor reproduction of the Field Day photos of the Yellow Thunder Amateur Radio Club's Field Day operation, along a few others. So, above is

an encore of those pictures, along with Field Day pictures from other clubs. Our sincere thanks to the clubs which responded to our request for photos of their Field Day operations. We hope that 1993's Field Day will bring even photo response!

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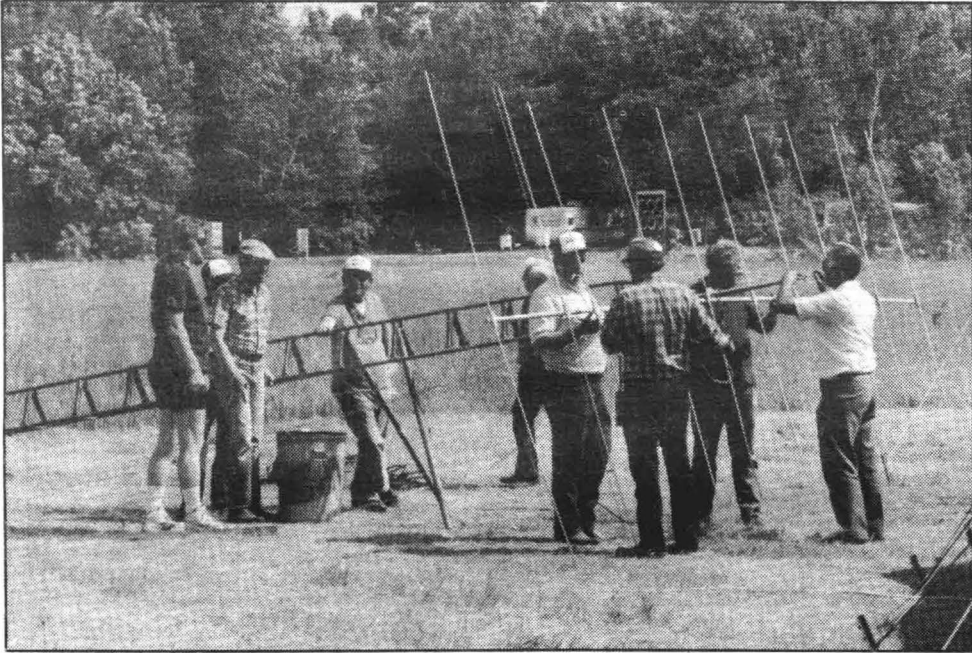
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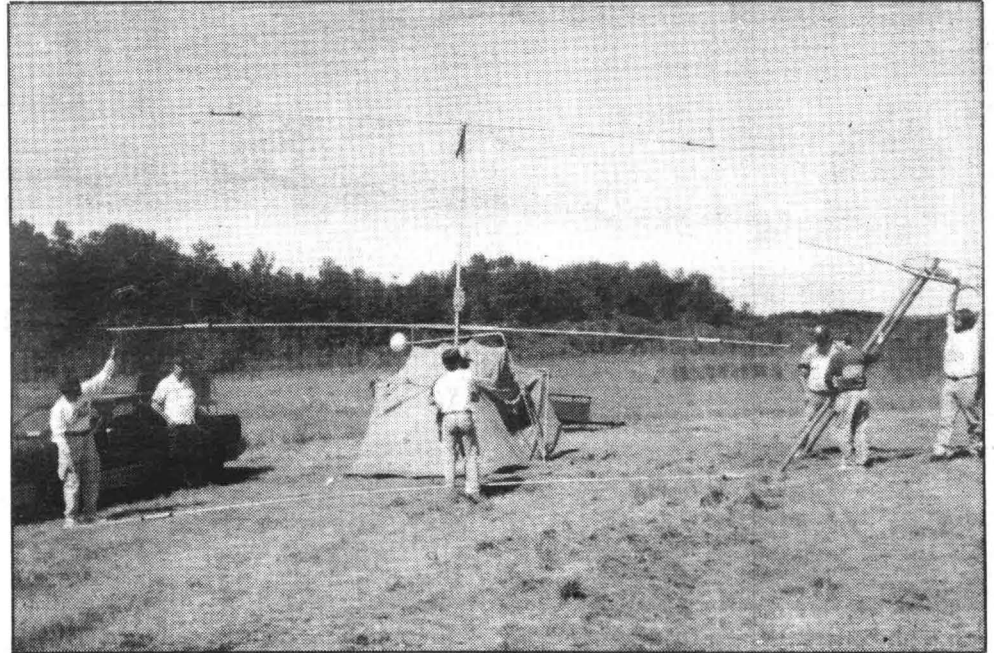
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Field Day 1992 • Ozaukee Radio Club • W9CQO

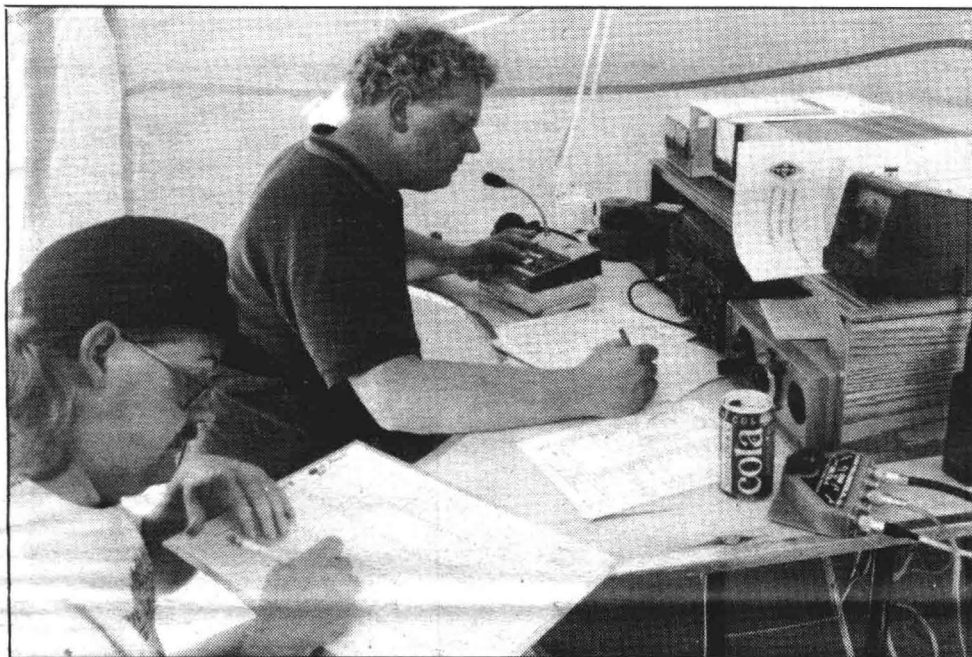
Class 3A, plus Novice and Packet • Lazy Days Campground near West Bend, Wisconsin



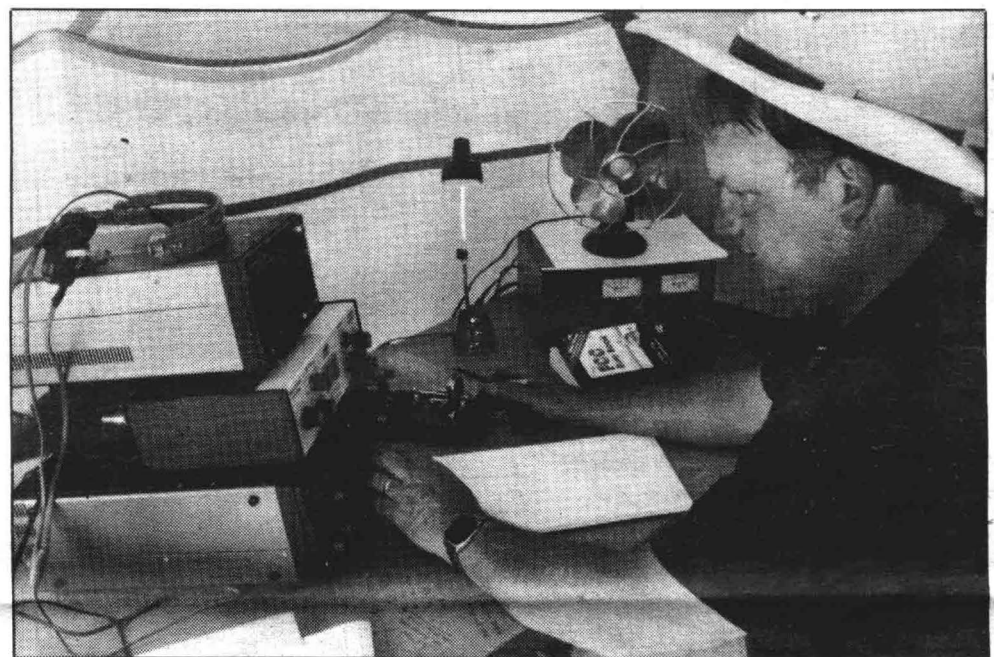
Ozaukee Radio Club members make ready the 6-meter beam and tower.



Ron Yokes, W9BCK, stands next to his car and supervises the erection of a beam antenna by other Ozaukee Radio Club members.



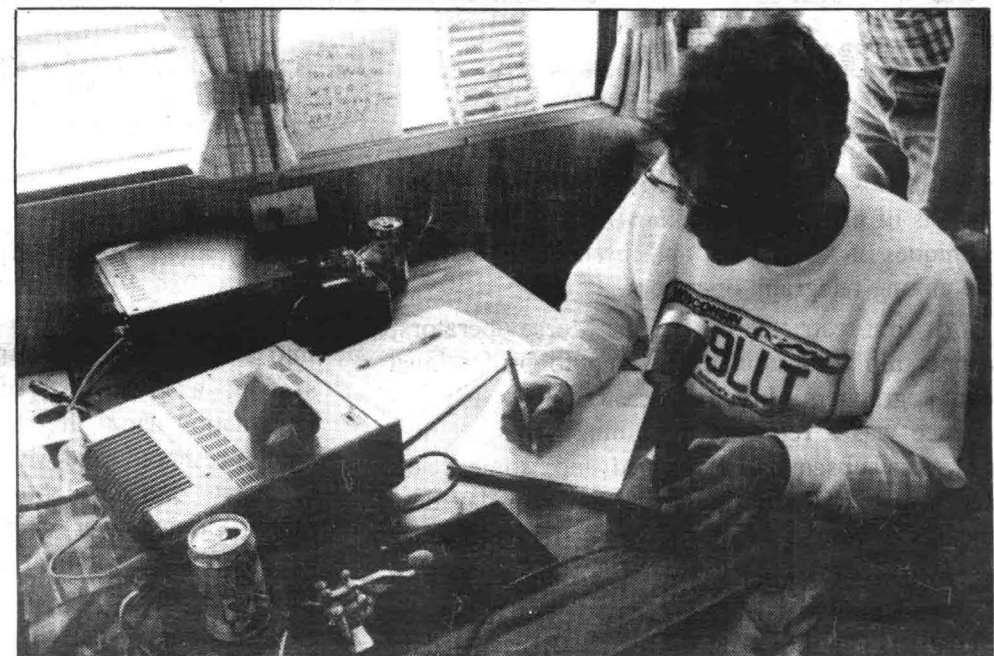
Ray Totzke, W9KHH, operates 20-meter phone while Brian Skrentny, N9LOO, logs.



20-meter CW is capably worked by Gary Sharbuno, WI9M.



Without power for the stations, Field Day wouldn't be! Here, Terry Koller, KA9RFM, and Skip Douglas, KA9DDN, adjust the motor-generator.



Ted Heilman, N9LLT, operates the 10-meter Novice phone station from his trailer.

Field Day with the Ozaukee Radio Club is a social gathering, then a contest. The club goes at it full bore, but it also makes sure that all have fun as well as working the contest.

It starts off at the May meeting where the ham who gets the shortest straw in a drawing, or misses the meeting, is appointed the Field Day Chairman. This year, Gary Sharbuno, WI9M, got the short end. So, as any good organizer would do, the various jobs are delegated to others!

The Food Committee (Skip Douglas, KA9DDN, and Cindy Douglas, KA9PZG) took various suggestions from the membership for our Friday night party and Saturday and Sunday morning breakfasts. Other jobs, such as Novice tent went to Herb Roehner, WA9UVK, and Jason, N9NNB; 40/80 phone tent to John Strachota, WB9OHY; the CW tent to Ron Yokes, W9BCK; and the 20/15 meter tent, Bob Krubsack, WQ9N. Packet and 10 meter phone went to Ted Heilman, N9LLT. Bulletins and message traffic went to ever-faithful Andy Henderson, KB9UE. A lot of new members helped gather equipment and stuff to add into the confusion.

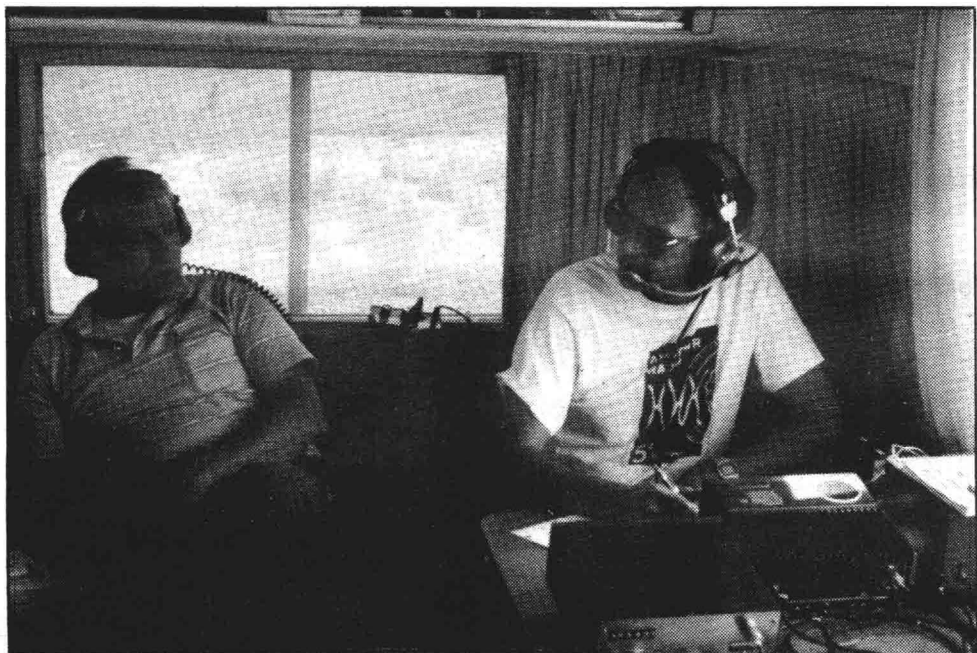
On Saturday morning, with the tents having been put up the night before and with a few odds and ends to trip over, the antennas and stations begin to be set up. About 85 percent of the club's members are at the operating site at one time or another to help operate or to repair tents. Then, at 1 p.m. on Saturday afternoon, WI9M sounds "CQ" on a car horn and the fun begins. Then come the last-minute visits from Murphy: "Do we have gas in the generator?" or "Who tied the guy line to Hal Giese's (W9RXJ) car?"

Most of the initial problems do get straightened out and the contest settles into a relatively smooth routine. The sound of CW "CQ FD" is heard, along with "You're 3A Wisconsin" coming from the phone tents.

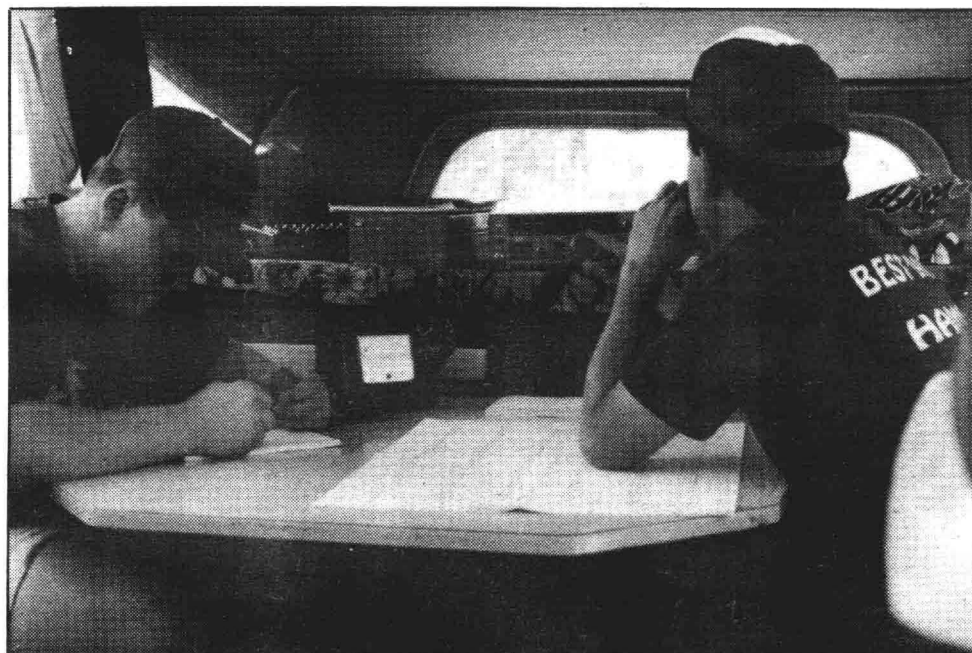
Somehow, Sunday morning comes all too quickly and, after a good breakfast from Skip and Cindy, all goes well until the sound of "73" from Gary's car horn at 1 p.m.

All of Lazy Days Campground near West Bend is quiet now, and the tired Ozaukee members knock down the operation..... with thoughts of next year. □

Field Day 1992 • West Allis Radio Amateur Club • W9FK

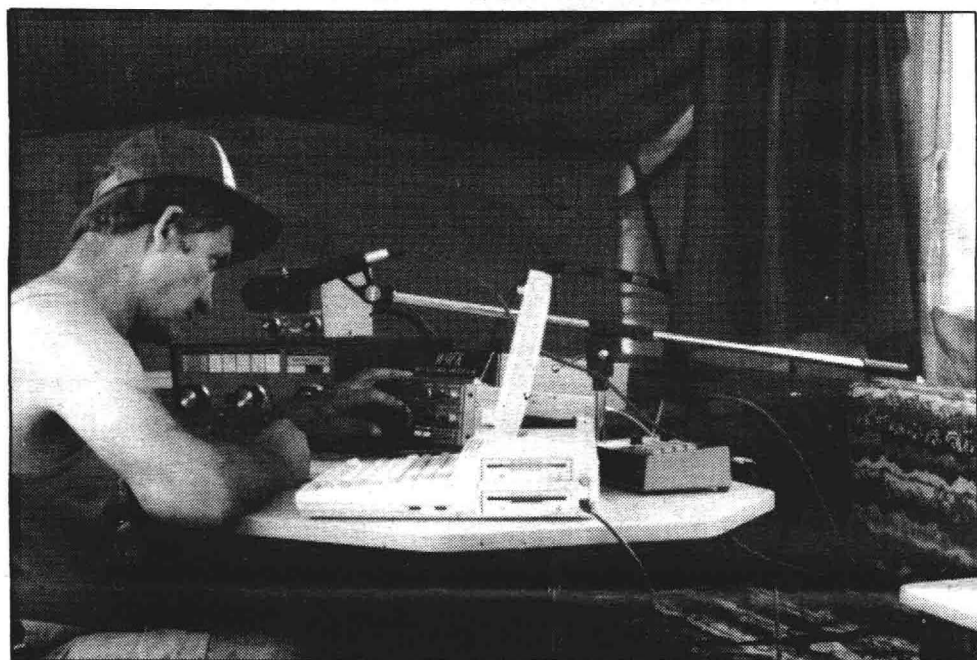


Lynn Tamblin, K9KR, left, takes a turn at logging the contacts, while Tom Macon, K9BTQ, makes them on 20 meter SSB. This station (in the luxurious facilities of Ron Hooker's [K9WTF] Airstream trailer) provided the 10/15/20 and 75 meter SSB effort for the WARAC Field Day effort.

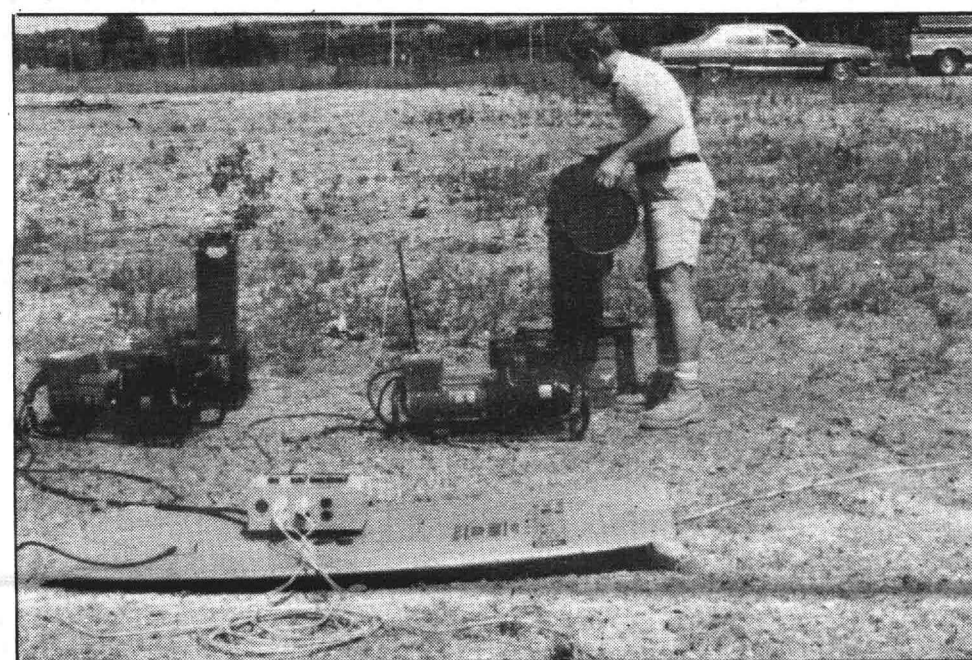


Ken Giesfeldt, KB9UAI, left, makes the Novice contacts for WARAC on 10 meter SSB, while Field Day Chairman Pete Mueller, N9JOO, tunes them in and keeps the dupe sheet updated.

- All photos by Les Peterson/W9YCV



Ralph Tramm, WT9P, mans the 1992 Field Day WARAC W9FK 40-meter phone station.



Phil Gural, W9NAW, helps the WARAC Field Day effort as he refuels one of W9FK's Generac power units.

Happy Birthday, Morse Telegraph Club!

The Morse Telegraph Club, Inc. was established in Los Angeles, California in April, 1942 as a means of preserving the knowledge, history, and techniques of telegraphy, and to encourage fellowship among telegraph operators.

At first restricted to landline Morse operators, membership was soon opened up to professional radiotelegraphers. In either case, one year's experience was a requisite to joining. This requirement was subsequently dropped and, some years later, Amateur Radio operators, as latter-day descendants of Morse operators, were invited to join.

In 1963, *Dots and Dashes* (once the name of a Western Union house organ) came into being as the official MTC publication. O. Hugh Braese became president after he retired from the presidency of the American Train Dispatchers Association, and was editor of *D&D*. Upon his death in 1972, MTC foundered, and it looked as if it might disappear. The club was shortly revived, however, this time being chartered in Illinois in 1973.

Two former Chicago Chapter "CH" members, Burlington Route operator Cecil Combs and Western Union veteran A.J. Long, became president and secretary-treasurer, respectively. Although some of the former membership was lost, a substantial group remained, and from 1973 to the present we have remained an active organization.

Until 1989, Western Union annually set up a Morse circuit on the last Saturday of April to connect our chapters together. Since that time, we have relied on John "Ace" Holman's brain child, "Dial-Up Morse," for communications between chapters and the results have been a very pleasant surprise.

Today, MTC has five Canadian and 42 U.S. chapters with a total membership (including non-operator subscribers to *D&D*) right at 2,500 - slightly more than when the editor came on the scene in 1984. We've almost imperceptibly changed from an informal group of working telegraphers into a living history group. Thanks to a computer system, a great deal of nuts-and-bolts type of information about the telegraph and telegraphy is being preserved, and we frequently are called upon to answer questions about the age of Morse telegraphy. Movie makers and such places as Disneyland have asked for technical advice and used us to find equipment and operators.

Despite the fact that manual telegraphy was largely abandoned at least 25 years ago, we can still grow. The reason for this is that pride in our craft (and affection for the fellowship many of us once enjoyed as Order of Railroad Telegraphers members) is not dead.

Wholly apart from MTC, informal convocations of operators in such widely separated places as Bangor, ME, Saskatoon, Sask., Minot, ND, and Pittsburg, Texas have occurred in the last two years. All around the country, depot museums are being equipped for Morse operation by former ops who don't know (yet) of our existence. Let's bring these groups and individuals into our fold!

At Milepost 50, we may be over the hill, but we're a long way away from the final terminal!

- *Dots and Dashes*, Jan.-Feb.-Mar., 1992

For more information about the MTC, write to Bill Dunbar, AD9E, 1101 Maplewood Dr., Normal, IL 61761. □

Morse Telegraph Club Amateur Radio Nets

EAST W1FSH	"MTC" 3.544
8:30 a.m. and 7:30 p.m.	
MIDWEST WA0QEY, W5MCJ	"MTC" 7.041
10:30 a.m. and 7 p.m.	
MIDWEST KA8HJS, others	"MTC" 7.144
9:30 a.m. Mon-Wed-Fri	
MIDWEST N0DJD, others	"MTC" 3.544
7 p.m. daily	
NORTHWEST K7RBR	"NRRN" 3.710
9 a.m. Mon-Fri	
NORTHWEST WB7VSN, WE7I	"NRRN" 3.710
7:30 p.m. daily	
WEST W6NTK	"MTC" 10.117
8:45 a.m. daily	

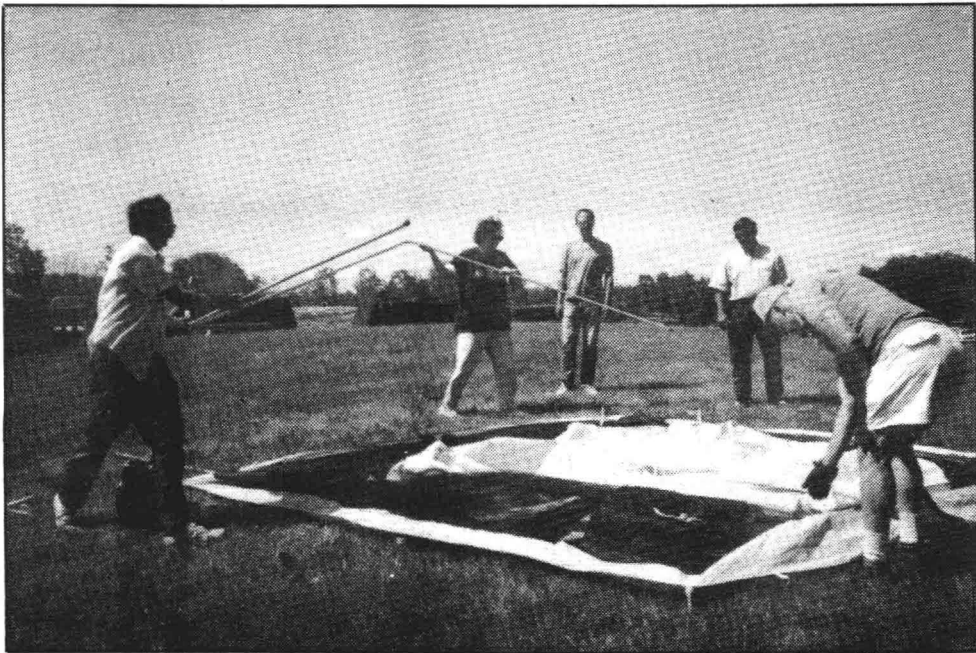
Most of these nets use American Morse as a means of perpetuating the "Mother Tongue." This is not meant to keep anyone out - feel free to join using International.

A list of MTC hams (600+) is available for \$2.00 U.S. from S.K. Vaughan, N0DJD, Box 291, Mt. Vernon, IA 52314.

- *Dots and Dashes*, Jan-Feb-Mar 1992

Field Day 1992 • Racine Megacycle Club

Armstrong Park • Racine, WI



Shelter preparation in progress: From left are Dave, KA9ZIO; Cheryl, WS9P; Dave (?); Jim, N9MGH; and Rev. Jim, WA0OFV.

- Photos courtesy of Arne Moxness/KA9ZPY



On-site beam antenna setup is always fun. On the tower is Rev. Jim, WA0PFV (in shorts) and an assistant. On the ground, facing the camera, is Jerome, KB9BJV, and the "rear" shot is of Dan, KA9OIL.



Standing next to the van is Field Day Chairman, Jim, KB9CCY. Generator operator Gary, N9MGH, is behind the trusty supplier of power.

Over 28,000 New Hams in United States Since January

In the first six months of 1992, 28,278 new amateur licenses were issued: 20,822 Technician; 7,046 Novice; and 410 other classes. There are now more than 571,000 licensed amateurs in the U.S. The totals as of the end of June were Extra, 59,720; Advanced, 109,020; General, 124,202; Technician, 179,761; and Novice, 98,577.

- The ARRL Letter, 8/10/92

Foundation for Amateur Radio Announces 1992 Scholarship Winners

The Foundation for Amateur Radio, Inc. is pleased to announce the 1992 winners for the forty-three scholarships which it administers. These scholarships were open to all radio amateurs meeting the qualifications and residence requirements of the various sponsors. Included in the awards made through FAR were seven to radio amateurs given by two Wisconsin clubs.

WARAC Memorial Scholarships of \$750.00 each were awarded to Timothy J. Czerwonka, WO9U, Chetek, WI; Robert J. Goemans, N9HAD, Madison, WI, and Douglas Kleeman, KA9LWN, Wauwatosa, WI. The WARAC Memorial Scholarships are funded by the West Allis Radio Amateur Club.

South Milwaukee Amateur Radio Club Scholarships, \$500.00 each, were awarded to Steven D. Kraft, KE9RW, Menomonie, WI; John Powilaites, N9KEX, Racine, WI; David Pettit, WO9M, Elwood, IN; and Eric J. Tlachac, KB9FPM, Wisconsin Rapids, WI.

The Foundation for Amateur Radio is a non-profit organization, incorporated in the District of Columbia, representing more than fifty clubs in Maryland, the District of Columbia, and northern Virginia. It is devoted entirely to the scientific, literary, and educational pursuits that advance the purposes of the Amateur Radio Service.

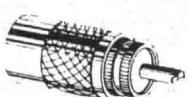
Announcement of our 1993 awards will appear in the March or April issues of the major Amateur Radio publications and radio club newsletters. FAR may be contacted at 6903 Rhode Island Avenue, College Park, MD 20740.

TOWER ELECTRONICS SEPTEMBER SPECIALS

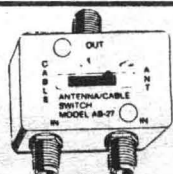
2441 SOUTH BROADWAY GREEN BAY, WI 54304
NATIONAL WATTS 1-800-862-3422 METRO GREEN BAY 435-4855

SEE US AT THE FOLLOWING HAMFESTS;

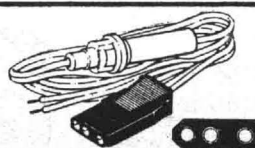
SEPT 6TH INDIANAPOLIS, IN SEPT 12TH LAPORT, IN SEPT 13TH JOLIET, IL
SEPT 13TH FINDLY, OH SEPT 19 & 20 PEORIA, IL SEPT 20TH LANZ-CRUZ MI
SEPT 26TH & 27TH GRAYSLAKE, IL SEPT 26TH & 27TH LOUISVILLE, KY



PL-259 SILVER PLATED
TEFTON CENTER
MADE IN USA REG \$ 1.50
\$ 1.00 EACH
50 FOR \$ 48.00



2 - WAY VIDEO SWITCH
75 OHM F CONNECTORS
REG. \$ 3.00
\$ 2.00
10 FOR \$ 19.00



3 PIN 2 WIRE DC CORD
FITS MANY CB RADIOS
3 FT. FUSED
REG \$ 4.00
\$ 3.00
10 FOR \$ 28.00



8 PIN DIN SHIELDED PLUG
REG \$ 2.00
\$ 1.50
10 FOR \$ 14.00

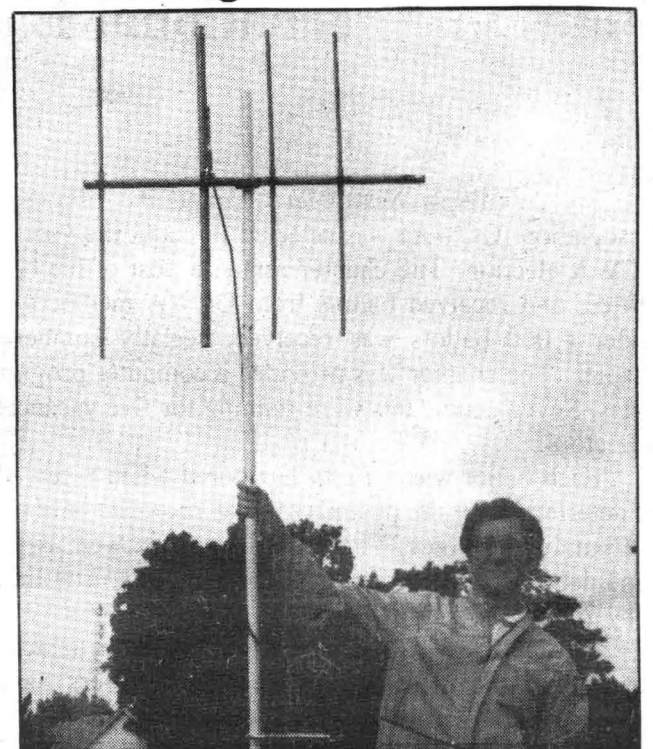


COAX SEAL
CONNECTOR SEALANT
1/2" X 60"
REG \$ 3.00
\$ 2.75
10 FOR \$ 27.00



GLOW IN THE DARK
MIKE HANGER
ADHESIVE BACKING
REG \$ 1.50
\$ 1.25
10 FOR \$ 12.00

Standing Tall and Proud



Steve Polishinski, WB9YSD, Sun Prairie, took part in a Fox Hunt in Baraboo on August 12. The hunt, held by the Yellow Thunder Amateur Radio Club, had excellent participation. Steve is holding a 4-element beam, mounted on a fiberglass mast. Steve, teamed with K9ZZ and a rider, was second to find the fox. Another hunt photo or two are elsewhere in this issue.

The One-Tower Antenna Farm

By Dick Sisson, W5ONL
517 Sheridan Road #1, Racine, WI 53403

Hams who live on city tract lots are forced to limit the bands on which they operate, or to make compromises in their selection of antennas. For those of us whose goal is to be able to operate on all of the bands, a little ingenuity can help achieve the goal without feeling that the compromises we make in our antenna systems are serious compromises of our station's performance.

In addition to the limits imposed by our property lines and our communities, most of us have additional limitations imposed by those with whom we live. At the very least, they expect an uncluttered look.

My antenna system was installed beginning in September of 1986. The antennas provide an acceptable SWR and respectable performance on each and every amateur band between 1.8 and 148 MHz. By reasonable performance, I mean my signal can usually hold a frequency under contest conditions, and stations I call in pileups often come back on the very first call. The look it presents to the neighborhood is uncluttered.

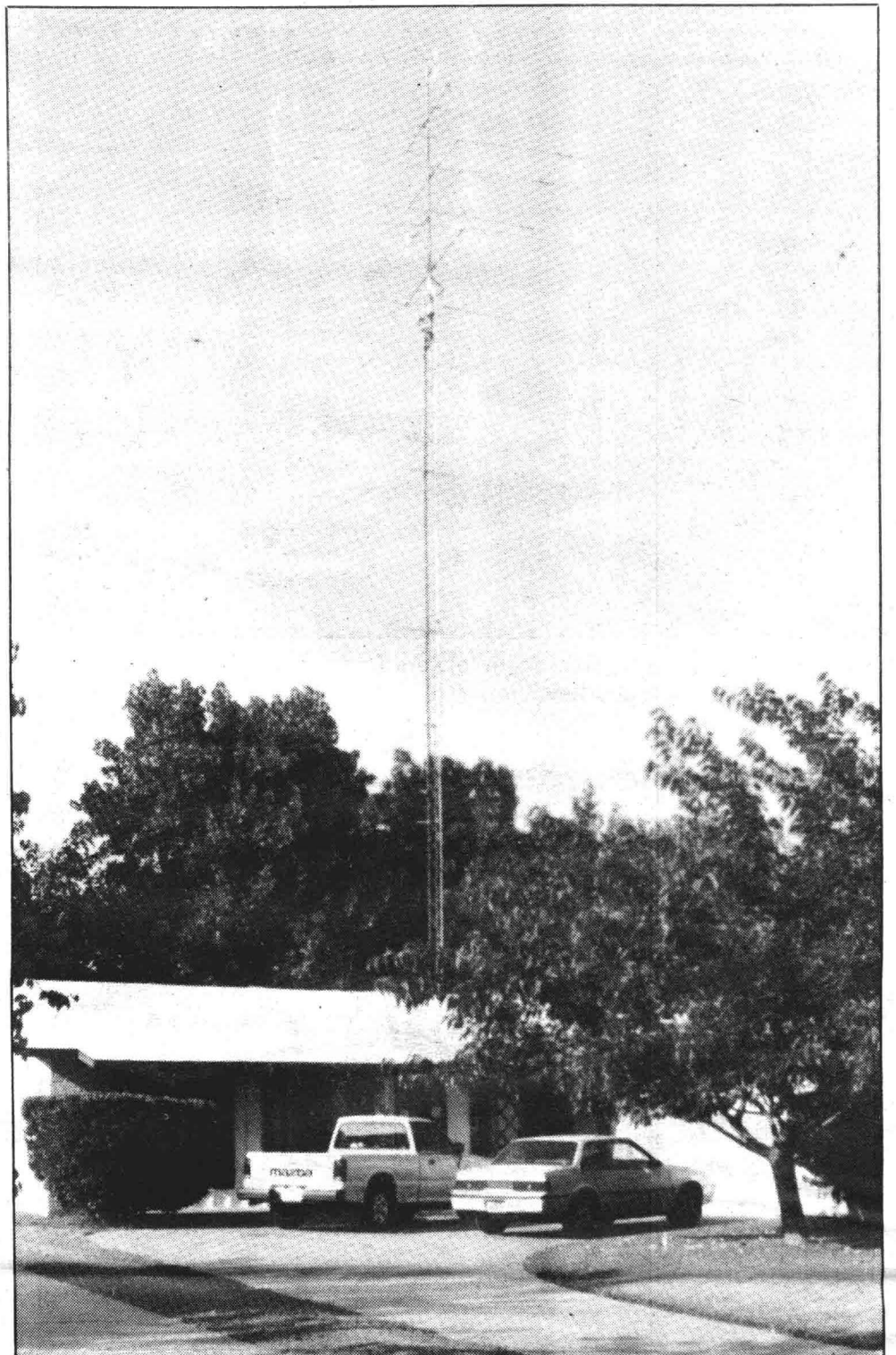
The tower is 71 feet high, with two sets of guys (with insulators every 26 feet). A 20-foot long, 2-inch OD heavy-duty steel mast extends out the top to approximately 87 feet. For added strength, a 10-foot long, 1-1/2 inch OD mast is inside the bottom half of the 20-footer. A HAM-II rotator has had no problem turning the five Yagis up there: a 4-element, vertically polarized 146 MHz Yagi at the 87-foot level; a 4-element 50 MHz Yagi at the 85-foot level; a TA-33 triband Yagi at the 80-foot level; a 15-element, vertically-polarized 144 MHz Yagi at the 75-foot level; and a homebuilt 2-element 7 MHz Yagi at the 71-foot level. These five Yagis are connected through an Ameritron RCS-8V remote coax switch located near the rotator to a 130-foot run of 7/8 inch Helix into the shack.

Side-mounted on the tower at the 67-foot level is a Cushcraft DW-3 triband dipole (forerunner of the Cushcraft D3W triband dipole) for the three WARC bands. It is fixed-oriented broadside east and west, and fed with RG-213/U through an Ameritron RCS-8 remote coax switch located at the base of the tower. Other antennas connected to this second remote coax switch are actually the tower itself, shunt-fed for 160 meters and 40 meters on two different legs of the tower. A 75-foot run of RG-214/U connects the lower remote coax switch to the shack. On the third leg of the tower is a shunt-fed network for 80/75 meters, fed with a separate run of RG-213/U. This was formerly connected through the same remote coax switch, but resulted in damage to the switch, so it was separated from the switch. The 7/8 inch Helix, the RG-213/U, and the RG-214/U all tie into a B&W coax switch right where they enter the shack.

A tuning network for one of the shunt-feeds is attached to each of the three sides of the tower, just a few inches off the ground. These were initially constructed in plastic refrigerator boxes, but all suffered serious deterioration by exposure to ultraviolet radiation from the sun, so all have been rebuilt into aluminum housings.

The Gamma Match 160-meter network is fixed tuned to 1850 kHz, and provides under 2:1 SWR from 1800 to 1910 kHz. Performance on 160 is outstanding for transmitting but, like all verticals, the noise level on receive could be better. I run only 100 watts on 160 meters, but best DX to date is South Africa.

An Omega Match network is used on 80/75 meters, featuring pretuned Omega capacitors and a large 100 pF air variable Gamma capacitor connected to an electric rotisserie motor. For a given setting, a 2:1 SWR bandwidth of only 25 kHz either side of center frequency is provided by this network, but it can be remotely moved up and down the entire band from inside the shack by the



This rather simple-appearing tower and antenna system is capable of providing good performance on all amateur bands from 160 meters through 2 meters, including the WARC bands. It is truly a one-tower antenna farm and, with some ingenious and innovative thought and work by the author in its design and construction, it works very well.

- Photo courtesy Dick Sisson/W5ONL

rotisserie motor-driven capacitor, so the relatively narrow bandwidth is unimportant.

Continued on page 13

Wisconsin QCWA Chapter Counts Votes in International Election

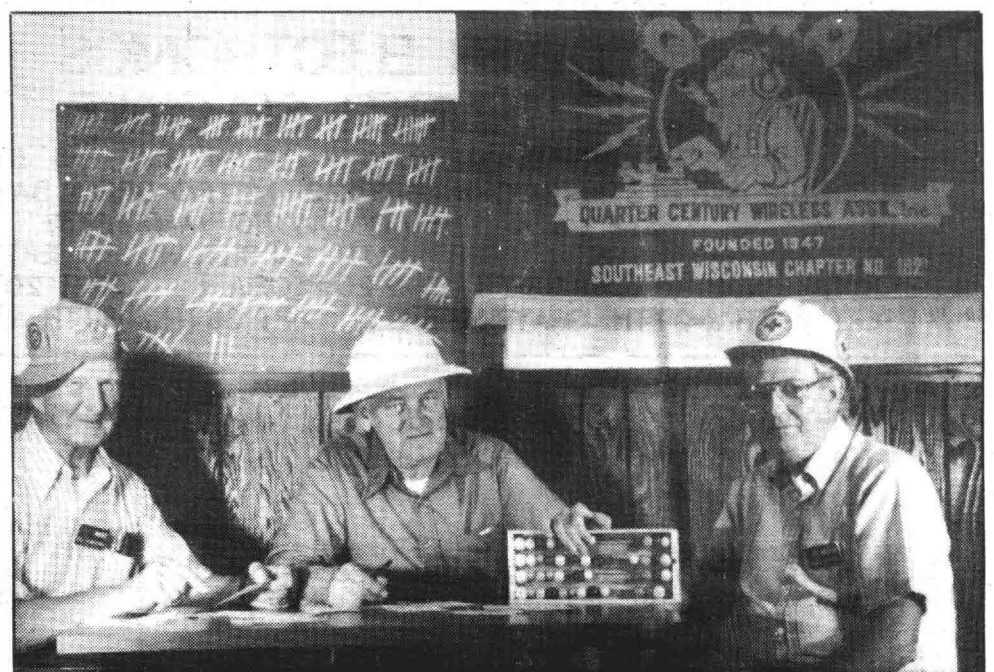
By Bob Jensen, W0WLN
5616 Cambridge Lane #6, Racine, WI 53406

The Southeast Wisconsin Chapter 162 of the Quarter Century Wireless Association (QCWA) was selected to count the votes for the 1992 International QCWA election. The chapter rented a post office box at the West Racine Post Office, and received ballots from QCWA members worldwide. A total of just under 4,000 ballots was received, serially numbered, and processed by the chapter. The chapter was provided a computer program for use in recording the votes. Seven candidates were running for five vacancies on the QCWA Board of Directors.

Each ballot was serially numbered when received, and the place of origin, as determined by the postmarks, was recorded on the face of each ballot, as was the number of votes. This information, as well as the votes for the individual candidates, was recorded on computer disks. The first ballots were received on May 26, 1992, and the last on July 20.

Of the 183 QCWA chapters worldwide, Chapter 162 is one of the smaller, but one of the most active. Chapter members have put on Amateur Radio demonstrations, assisted with communications for local community activities, assist the local Amateur Radio Volunteer Testing Team, and recently sold Amateur Radio equipment for the estate of a deceased member.

Meetings are held monthly, and alternate between business sessions and social gatherings with wives and guests. The August meeting was the annual picnic, held at the farm home of Larry McCalvy, WA9JMO, and his wife, Wendy, N9PAC, on August 23, 1992. The picnic site features acres of park-like setting with a private swimming and fishing pond.



The Southeast Wisconsin Chapter 162 QCWA "High-Tech Crew" processes ballots for the 1992 QCWA international election. From left to right are Bill Komistra, W9OVZ; Steve Bellgraph, K9ZL; and Chuck Knotek, W9GKM.

- Photo courtesy of Bob Jensen/W0WLN

Anyone who had an Amateur Radio license at least 25 years ago and currently holds a license is eligible for QCWA membership. The license need not have been held continuously.

Further information about QCWA and the Southeast Wisconsin Chapter can be obtained from Bob Jensen, W0WLN, 5616 Cambridge Lane #6, Racine, WI 53406.

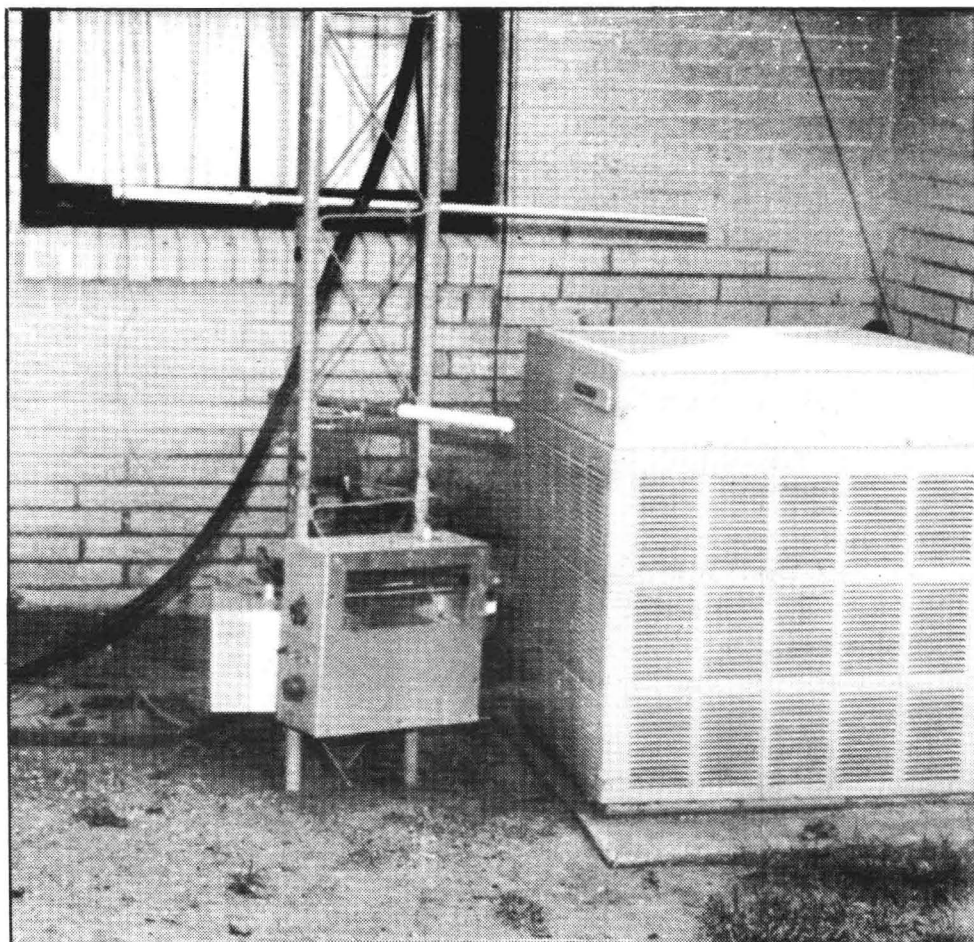
The One-Tower Antenna Farm

Continued from page 12

A Gamma Match network is used on 40 meters, featuring a large 50 pF air variable capacitor connected to another electric rotisserie motor. For a given setting, a 2:1 SWR bandwidth of 60 kHz either side of center frequency is provided by this network, with the same capability to remotely move the center frequency up and down the entire band from inside the shack. There is no measurable interaction between the 7 MHz Yagi on top of the tower and the shunt-fed tower itself on 7 MHz. The Yagi is fixed-tuned for 7040 kHz, and has a 2:1 SWR bandwidth of 40 kHz either side of this frequency. The Yagi consistently outperforms the shunt-fed tower on receive throughout the entire 7 MHz band. According to the books, my antenna system is too tall to be a really effective vertical antenna for DX on 7 MHz, my S9 reports from Argentina on that band notwithstanding.

The only instance where I've noticed interaction between the various antennas has been between the fixed WARC dipole on 12 meters and the rotatable TA-33 on 10 meters. I have a couple of possible solutions in mind, but as yet have not tried either of them. One would be to move the WARC dipole up onto the rotatable mast, and orient it at right angles with the Yagi elements. I am concerned about increasing the load on the top of the tower and on the rotator any further. The other solution would be to move the WARC dipole further down the tower, which might possibly interact with the shunt-fed tower on one or more bands. □

Next month, Dick tells us about an antenna any renter will appreciate - the "Stealth Antenna." Remember that our writers appreciate hearing from our readers. If you have comments about Dick's articles, he would be happy to hear from you. Please write to him at his byline address. □



This view shows the shunt-feed networks, which are tower-mounted just above ground level. The air conditioner at right is for cooling the house, not for cooling the antenna installation.

- Photo courtesy Dick Sisson/W5ONL

Instant Tickets

Continued from front page

Currently, foreign amateurs can obtain operating permission in the U.S. by one of two methods: passing a standard U.S. amateur examination at any of the five license levels, or applying for a reciprocal operating permit (if the applicant's home country has a reciprocal operating agreement with the U.S.).

Both these options can take months in the process.

The following would be required for the 60-day permits:

- Confirmation that the applicant holds an amateur license from her own country;
- Verification of operating privileges granted by that license;
- Confirmation that the applicant "is qualified

to perform the duties of an amateur operator in the United States and that authorization is in the public interest";

- Providing the applicant with a suitable document authorizing the 60-day operating permission;

- Recording with the FCC such information as where the applicant can be reached during her stay in the U.S.

The FCC "considers the possession of the foreign amateur service license as proof of qualification in eight of the nine operational and technical topics contained in every written (U.S.) examination." Thus, volunteer examiners would be responsible mainly for ensuring the applicant's knowledge of the one topic not covered in foreign license exams: U.S. rules and regulations.

The applicant would be tested on those rules and regulations "most applicable to the type of operation in which the visitor plans to engage while in the United States," according to the NPRM.

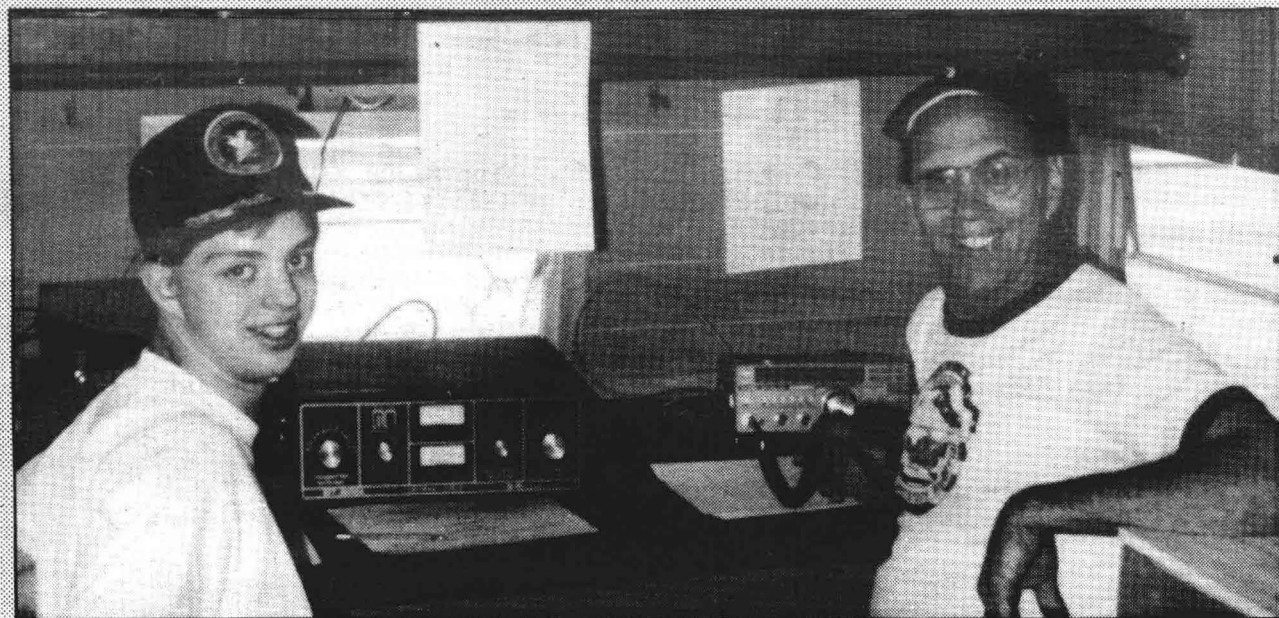
FCC Commissioner James H. Quello, while concurring with the proposal, issued a statement with two reservations: first, were the proposal to become reality, that other countries would have little incentive to enter into a reciprocal operating agreement with the U.S., and, second, that allowing foreigners to operate in the U.S. without a reciprocal agreement is "inconsistent with the Communications Act of 1934, as amended," Quello said.

The FCC proposal does contain this caveat: "Because we are proposing to permit the stations [operations - ed.] of amateur operators from foreign countries that do not have a reciprocal agreement with the United States to transmit while in the United States, we specifically invite comments from other government agencies as well as from the amateur community concerning any potential national security implications of this proposal."

Comments on this NPRM are due by October 26, 1992; the deadline for reply comments is November 30, 1992.

- The ARRL Letter, 8/10/92

Eau Claire Amateur Radio Club Members Help with July 4 Special Event Station



Eau Claire ARC members John Kolbrak, N9KBB (left), and Dan Perkins, N9HME, operate in the club's mobile communication center trailer at the July 4 special event station operation at the Highground Veterans Memorial at Neillsville, Wisconsin.

- Photo courtesy Dann Perkins

From the Old Goat

Jim Romelfanger,
K9ZZ, Editor



We have just a few items to pass your way this month.

• Last month's issue of BSSS was late getting to the printer, thus making it late getting to you. It was assembled while I was ill with one of the oddest "bugs" I have ever had. It began with me staggering like I had a snootful, but I didn't. Not knowing that my balance had been destroyed while I slept gave me quite a surprise when I awoke the next morning, stood up, and almost fell down. Quite unpleasant and certainly a shock. I won't bore you with details of what followed for the next five weeks. Please accept our apologies for being late.

• This issue will be late to press, as well. I was still ill when I began putting it together, and this one is 20 pages, not sixteen per usual. Our apologies again. Maybe we can get back on track next month. We will try.

• The hard drive in our computer was close to failure. The result was installation of a new, larger hard drive, along with \$400.00 more red ink in our books.

• We hope you all had a great summer. Have fun in the radio-active operating season which is just around the corner! □

SINCERE THANKS from the staff of BSSS to all of the volunteer authors, photographers, cartoonists, and others who have submitted material for publication. Without your unselfish contributions, there could not be a newspaper to publish. We welcome all material for consideration for publication. Occasionally, some material is not used (poor or unreproducible drawings, out-of-focus or improperly exposed pictures, etc.). We do try to run everything we can, however. Again, thanks!

First There Was AM, SSB, FM, and Now it's SS!

That's "Spread Spectrum," and it is a modulation form that is rapidly finding its way into ham radio.

Spread spectrum isn't some recent discovery, since the military has used it since about 1946. But it sure is new to ham radio, and it won't hurt any of us to know a little bit more about it.

Why is it so late in coming to ham radio? Probably because it was a secret mode of communication until about 1961 or so, and also because spread spectrum just doesn't fit into the "normal" idea we all have about signal bandwidth. Spread spectrum uses at least one MHz of spectrum, and most of us have been taught that a signal should use as little bandwidth as is needed to get the job done. In general, the FCC has felt that traditional narrow-band modulation techniques were the best for everyone.

There are two major kinds of spread spectrum communications. The first type of spread spectrum transmissions is where the transmitter hops from one narrow-band frequency to thousands of other narrow-band frequencies, but it does it very fast, often several thousand times each second. This means that no single frequency has a chance of getting QRM'd for any length of time.

The second type of spread spectrum modulation is made by mixing the modulation with a very fast digital code which causes the spreading to happen. The combination of the ever-changing modulation, along with the ever-changing digital code, means that no single narrow-band frequency gets hit by any spread spectrum signal very often. The digital code is often thousands of bits long before it repeats, so a spread spectrum signal is very hard to decode, and may occupy one or two Megahertz of spectrum space.

There are several nice things about spread spectrum. If a spread spectrum repeater is built for a town, it is easily possible for as many as 40 different conversations to be repeated, all at the same time! This means that each town doesn't need more than one or two repeaters. Spread spectrum also does *not* interfere with existing narrow-band repeaters, so this is one example of a new technology that can be put in place without causing undue interference to existing radios.

Spread spectrum also allows for millions of different codes to be sent. Such a number of codes means that extra features can be built into spread spectrum equipment. Features like being able to listen only for your buddy's calls, like on packet. Or being available in a group, such as belonging to a DX net on your repeater. Spread spectrum also can behave like a subaudible tone, except that every ham can have his own! If you want, your radio can be instructed to reply only to modulation that contains your call sign.

Spread spectrum is efficient. It is well proven that spread spectrum can communicate with only 10% of the RF power we use on narrow-band FM. If you use a 45 watt mobile now, you will be able to get the same range using only 4.5 watts with spread spectrum. Recent commercial testing in San Diego proved that perfect telephone conversations were held on spread spectrum using only .005 microwatts! Spread spectrum uses power-control sensing inside the radio to automatically adjust the output power for the amount of signal needed to maintain communications, so HT batteries will last a lot longer.

Just last month, the FCC issued the first STA (Special Temporary Authority) to a small group of hams to begin a particular form of spread spectrum experiments on 2 meters, 220 (sic), and 440 MHz. This group will use code-division, multiple-access (CDMA) spread spectrum modulation, and I sincerely hope to be involved as much as I can in these experiments.

Every ham should attempt to learn as much as he or she can about new technologies, and this new way to modulate our ham bands is especially interesting for me. One of its biggest promises is a new kind of radio, with more features, for about 1/3 the cost of existing mobile FM equipment.

- A. Rutz, WD9GKA in *State of the ARTS*, Allen County (IN) Amateur Radio Technical Society

Learn More About VHF/UHF with New ARRL Publication

The ARRL's latest book title is *Your VHF Companion*, now on sale for \$8 (soft-bound, plus \$3 shipping and handling).

While the book is aimed at the codeless Technician license, it also has a wealth of basic information on the VHF and UHF bands for more experienced operators wishing to broaden their horizons, according to its editor, Steve Ford, WB8IMY.

- *The ARRL Letter*, 7/27/92

MOVING? Please send your new address to Ken Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901

Robert Hertzberg, K4JBI, Dies; Was Prolific Writer and Editor

Robert Hertzberg, K4JBI, of Boca Raton, Florida, died June 30, 1992 in Brooklyn, New York. He was 87 years old, formerly W2DJJ, and a longtime technical writer and editor.

In the early 1920s, he joined the Stuyvesant High School Radio Club and became 2ABK. According to his son Paul Hertzberg, K2DUX, while even in high school Robert Hertzberg began publishing articles in his newspapers on how to build shortwave radios.

In the late 1920s he worked for the Pilot Radio Co. in the development of the well-known "Super Wasp" receiver. He also was an early experimenter in television.

He joined the U.S. Army Signal Corps and participated in early experiments in aircraft radio and mobile communications. On active duty following Pearl Harbor he was stationed in England, where he was on the staff of Gen. Omar Bradley and helped organize a training school for radio operators.

Following the war, he became a free-lance technical writer. Probably his most well known work was "So You Want to be a Ham," first published in 1956 by Howard W. Sams and updated throughout the 1960s.

He also was on the staff of Fawcett Publications, becoming editor of *Mechanix Illustrated* and later founding *Electronics Illustrated*.

In addition to his son Paul, he leaves his wife, Beatrice, WA2RST, and four grandchildren.

- *The ARRL Letter*, 7/27/92

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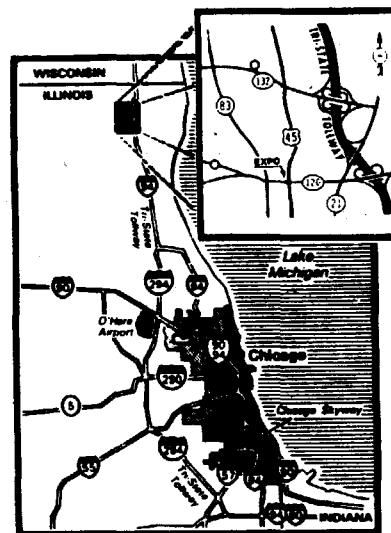
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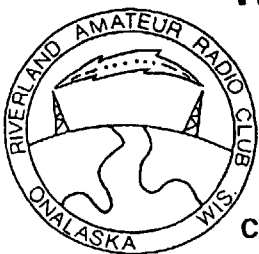
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Please include a self addressed stamped envelope.



Riverland Amateur Radio Club

Dick Low, K0JYB,
Secretary

Club mail address: P.O. Box 621
Onalaska, WI 54650



MEETING MINUTES AUGUST 3, 1992

The August meeting of the Riverland Amateur Radio Club was called to order by President Walt, AA9AW, at 7:05 p.m. 31 members in attendance.

The reading of the minutes of the June meeting was dispensed with, pursuant to a motion by Kent, W9LZQ.

The treasurer's report was given by Duane, W9HWQ, and accepted as read.

COMMITTEE REPORTS

Trailer Committee: The Trailer Committee reported that the generator is in the hands of Dallas, W9LEC, although he has been unable to look at it because of illness.

Swapfest: Swapfest chairman Judy, N9LGV, informed us of the Nov. 7, 1992 date and location of the event. It will be held at the Onalaska Community Center. In discussion, it was suggested that we begin planning for the 1993 'fest.

Repeater Technical Committee: Chairman Van, WA9FIO, reported that he and Walt, AA9AW, made a repeater site inspection and replaced an op amp in the receiver to phone line unit. The TLO64 chip was causing distortion in the auto patch.

A discussion was held regarding out of towners and travelers passing through town, wanting to use the auto patch. It was decided to help the person by dialing up the rather than giving them the access code. Van told us that the Madison, WI repeater group (of which he is a member) changes their access code every six months, informing members only.

There was also a discussion regarding the use of voice or cw for repeating the numbers when the auto patch is dialed. Van will change it back to voice again and a vote could be taken at our next meeting as to our preference.

Special Interest Groups: In the absence of Bruce, K9CUT, Feroze, WU9N, reported on the DF-ING group. Maps and map reading were discussed at the last meeting. City and county maps were under consideration.

Ambassador: Ambassador Clarence, N9NXW, received a warm welcome at the Eau Claire meeting. Some one inquired about Dick, K0JYB (me). I'll bet it was Don, K9UXP, an old buddy since 1946 (M.U.). Rick, KV9U, is a new member of the Ambassador group.

Programs: Feroz, WU9N, reviewed the program schedule as follows: Tonight - Winding toroids to prevent telephone interference.

August 15th - Joint picnic with the Winona ARC to be held at Perot State

Park. It will be pot luck, and Kent, W9LZQ, will be bring the corn.

September meeting - Show and Tell.
October - Amateur Radio Weekend.

Kent, W9LZQ, has been in contact with the Winona ARC and the are still in need of volunteers for the Sugar Loaf Bicycle Classic.

A motion to adjourn the meeting was defeated, but a motion to extend the meeting beyond the 45 minute limit was passed.

NEW BUSINESS

A motion was made by Kent, W9LZQ, and seconded by Feroz, WU9N, that a committee be formed to investigate the feasibility of installing a 450 MHz repeater. Motion carried. The committee members will be Kent, W9LZQ, Chairman; Scott, KB9GCV; Dan, N9PZC; and Joe, W9SOQ.

Rick, KV9U, led a discussion regarding the 1993 Swap Fest. He suggested the American Legion Pole Building, although heating the place in November may be a problem. A committee will be appointed and plans should be made well in advance.

Meeting adjourned at 8:10 p.m.

Submitted by Dick, K0JYB

MEETING ATTENDANCE

Charlie Burch	KA9UUK
Judy Williams	N9LGV
Duane Fruechte	W9HWQ
Dick Low	K0JYB
Wid N. Johnson	W9DM
Maty Johnson	W9DM-XYL
Joe Mezera	WA9SOQ
Walt Altus	AA9AW
Rick Williams	KV9U
Feroz Ghouse	WU9N
Clarence Crum	N9NXW
Dean Summers	KQ0C
Scott Hurd	KB9GCV
Mike Warnock	WN9P
Brian McCarty	N9IWP
Keith Hollatz	KB0KII
Scott Neader	KA9FOX
Tom O'Brian	WB9BJQ
Art Osborn	W0JDC
Bruce Ladron	N9PZE
H. Barker	KA9EJZ
Richard Fink	N9KLU
Jim Darnell	
Van Elston	WA9FIO
Roger Christenson	
Mike Tessmer	N0BSH
Paul Bisping	N9PZB
Kent Helman	W9LZQ
Margy Lentz	N9PZA
Dan Abts	N9PZC
Brent Atchison	N9PZD

Taylor County Area Amateur Radio Club

Mike Schoenfuss, N9GHZ, Secretary

Abbotsford, WI 54405-0401

Taylor County Area Amateur Radio Club Meeting Announcement

The next regular meeting will be held on Thursday, September 3rd at 7 p.m. in the Emergency Government meeting room/Red Cross office located in the basement of the sheriff's annex to the Taylor County Courthouse, corner of 2nd and Ogden Streets, Medford, WI. Talk-in on 147.75/147.15 repeater.

EXCERPTS FROM MINUTES OF AUGUST 6, 1992 TAYLOR COUNTY AREA ARC MEETING

Meeting was called to order by Vice-President KB9BLV in the absence of the president. Present were N9GHZ (Abbotsford), KB9BLV and WD9FWP (Dorchester), N9LHY, XYL and son (Sheldon), N9IDW (Lublin), W9LEE (Westboro), N9LIU (Holcombe), and N9FZD (Medford).

Minutes of the July, 1992 meeting were read by Secretary N9GHZ. Treasurer's report by Treasurer WD9FWP indicating a balance of \$398.43.

A letter was sent to *Badger State Smoke Signals* on July 13th regarding the subscription renewal billing problem. No reply or billing had been received yet, and the consensus of the membership present was to wait until the September meeting for a reply or billing before taking any further action.

The July 4th special event station at The Highground near Neillsville was discussed. All club members who either helped operate the station or stopped by to visit were thanked for their participation.

A \$500.00 grant was recently received from the Ann Marie Foundation for purposes of upgrading our emergency communications repeater system. A thank you letter will be sent to them. KB9BLV announced that he would be donating his time and materials for the work he is doing on the new repeater cabinet. On behalf of the club, members present expressed their thanks for his donation.

Motion by N9LHY, seconded by N9FZD, to purchase an Astron RS-50A power supply to replace the existing repeater power supply. Motion carried.

No reply has yet been received from Vital Communications in regards to setting up a date to have the repeater antenna and feedline checked out. The club secretary was directed to send out a second letter.

The club's AEA Isopole 2-meter antenna is damaged and not useable at this time. Motion by N9LHY, seconded by W9LEE, to purchase a Cushcraft Ringo AR-2 2-meter antenna to replace the AEA Isopole antenna for use as a portable/emergency repeater antenna. Motion carried.

It was reported that N9LIE is looking for signal reports for the Sheldon 2-meter repeater (145.47, -600 kHz) from mobiles and base stations. The repeater is still presently at his home QTH. It is to be moved to Flambeau Ridge in the near future. This will result in an increase of 450 feet in the antenna height over the repeater's present location.

There will be an Amateur Radio exhibit at the upcoming Clark County Fair in Neillsville. A 10-foot by 10-foot space has been reserved. Dates for the fair are August 12th through the 16th. This may very well be the first time there has ever been an Amateur Radio exhibit at this fair. Equipment and manpower are needed to help make the exhibit a success. It is hoped enough interest can be generated to enable the offering of license classes later this year in the southern Clark County area.

There was some discussion of the possibility of the club purchasing an AC generator. No action was taken at this time.

It was announced that Taylor County has received the donation of a small bus to be used as a mobile command post during emergency or disaster operations. According to Emergency Government Coordinator Roland Sacho, plans call for having a 2-meter rig installed in the vehicle.

Meeting adjourned at 8:37 p.m.

SUMMARY OF 1992 MORSE CODE TRAINING COURSE AT THORP, WIS.

Classes were held in the Thorp Public Library meeting room, at no cost. There were a total of 10 sessions, running from 2/1/92 through 4/5/92. Instructor for the course was N9GHZ. There were a total of 12 individuals taking the course, although some started late and others dropped out early. Those enrolled included N9LHY (Sheldon), Harry Kluender (Greenwood), N9MEH and N9MEI (Stanley), N9NDT and KB9HTX (Gilman), N9MED (Lublin), N9MHV (Neillsville), and KB9HCS, KB9HTY, KB9HTW, and Jim Kaz (Thorp).

Attendance at the classes was as follows (date/no. attending): 2/1/92 - 9; 2/9/92 - 8; 2/16/92 - 4; 2/23/92 - 6; 3/1/92 - 7; 3/8/92 - 7; 3/14/92 - 6; 3/22/92 - 6; 3/28/92 - 7; and 4/5/92 - 4. Five WPM code and Novice theory exams were given at the final two classes on 3/28 and 4/5. Thanks to Don, WB9MYE, Thorp, for assisting N9GHZ with administering the exams.

Those passing exams at the classes were KB9HTX (Gilman) and KB9HTY and KB9HTW (Thorp), who all qualified for a Novice Class license. In addition, N9MEI (Stanley) and N9MED (Lublin) both passed the 5 WPM code exam at the VE exam session held at Medford on April 11th. N9NDT (Gilman) passed his 5 WPM code exam at the VE exam session held at Marshfield on May 9th. Congratulations to all!

CONGRATULATIONS TO.....

- Cliff Steevens, WA9YCT, Medford, a parts sales representative for Northwest International Trucks, Inc. in Abbotsford, who was recently selected Outstanding Employee of the Month. The program honors an employee who is dedicated to providing superior customer service, shows extraordinary work traits, a cooperative spirit, and company loyalty. Cliff has been with Northwest International since 1960.

- Eric Brehm, KA9WDB, Colby, who was recently recognized as one of three top graduating seniors in the Department of Theatre and Dance at the UW-Stevens Point. A drama major, he was among about 15 outstanding actors, dancers, and technicians honored at a recent awards banquet by the Holiday Inn, Stevens Point, sponsored by the department and by The Players, a student group. Eric, who was also named the best male performer in theatre, has played leading roles in numerous productions at UWSP.

- The following individuals who passed Amateur Radio exams at the annual Eau Claire hamfest on July 18th:

- ★ N9GHZ (Abbotsford), Extra Class theory.

- ★ Joanne Lundgren (Sheldon), XYL of N9LHY; Henry Peterson (Owen); and Mike Tomaszewski (Conrath), who all qualified for the codeless Technician Class license.

- ★ Dave Rosolowsky (Conrath), who passed the Novice theory exam. He went on to qualify for a codeless Technician Class license at the VE exam session held at Tomahawk on July 25th.

□

Computer

By Rich Regent, K9GDF
5003 South 26th Street



Tips

Milwaukee, WI 53221

PRINTER STREAKING

Q. My dot-matrix printer makes a horizontal line on papers.

A. There's usually two reasons. First, a printer-head pin might have stuck out. Printing directly on the platen, such as when printing beyond the paper edges, can damage the print head. Perform a "self test" printout to see if one dot is always missing or dragging along. If so, replace print head. Second, there may be a paper thickness adjustment called the copy control lever. Proper positioning of the copy control lever is essential for high print quality and maintenance free operation. Thick paper or multi-ply forms can cause

print smudges, move the lever to a higher number until print quality is satisfactory.

SELF-TEST PRINTOUT

Q. How can I test my printer without any programs?

A. Insert as wide a paper as your printer will accept. Turn on the printer while simultaneously holding down the feed (or line feed) button on the printer's control panel. When the printing starts, release the feed button. You'll get a complete sample page of the alphabet, numbers and characters showing what your printer can do. To stop the self test at any time, turn off the printer. □

ATTENTION CLUBS: Please send photos of your club members' activities to K9ZZ, 412 1/2 Ash St., Baraboo, WI 53913.

Racine Megacycle Club

Arne Moxness, KA9ZPY, Secretary

3345 Newman Road • Racine, WI 53406

The next Megacycle meeting will be September 14 at 7:30 p.m. at the downtown Safety Building in Racine at 730 Center Street. Coordinator is Dave, WB9USI. There will be a demonstration of the 911 system and other activities.

RACINE MEGACYCLE MEETING AUGUST 10, 1992

President Brian, WD9FRH, called the meeting to order at 8:40 p.m. The minutes, as presented in the *Badger State Smoke Signals*, were approved. Treasurer Dave, WB9ZIO, was on vacation so no balance was available.

Fourteen persons were present. There was no old business.

NEW BUSINESS

Dick, W5ONL, suggested the club send the Swan transmitter in for repair. It has to be repaired or replaced before next Field Day. There was discussion on repairing the old radio or buying a new one. The Club has no money for a new radio now.

Rich, K9GDF, and his wife were introduced. He is the appointed (not appointed, *elect*). - BSSS editor). representative for the ARRL in this area, and had come to thank The Racine Megacycle Club for its 25 year-long membership in the ARRL. As proof, he presented President Brian, as the Club representative, a framed certificate. Bob, W0WLN, pointed out that Rich is a very active representative for the ARRL. He is also active in the BSSS with his cartoons and articles.

President Brian proposed that The Racine Megacycle Club join the Racine Bicycle Club in sponsoring the upcoming Breezy Bike Ride. The Club will share 50/50 any profits after expenses are paid. Dave, WB9USI, made a motion which was seconded that the Club participate. The

Calendar

Courtesy Racine Megacycle Club

Sep 13	.....	Hamfest at Joliet
Sep 14	.....	Megacycle Club Meeting
Sep 18	.....	Fox Hunt
Sep 19 and		
Sep 20	.....	Hamfest at Peoria
Sep 26 and		
Sep 27	.....	Hamfest at Grays Lake
Oct 3	.....	Testing at Red Cross
Oct 11	.....	Hamfest at Waukesha
Oct 12	.....	Megacycle Club Meeting
Oct 27	.....	Lakeshore Club Meeting
Nov 7	.....	Hamfest at Serb Hall
Nov 7	.....	Testing at Red Cross
Nov 9	.....	Megacycle Club Meeting
Dec 5	.....	Testing at Red Cross
Dec 7	.....	Megacycle Club Meeting
Jan 10	.....	Hamfest at Waukesha
Apr 4	.....	Hamfest at Madison

Hams who participate will, besides the radio activity, also help with the food and drink distribution at the rest stops. It was felt that the Hams would have time besides listening to the radio. The event will take place Sunday, September 20. Brian, being a bicycle rider, is the contact person with the bike club. Please sign up to help by contacting Brian or any of the Club officers. This is a money making activity.

The meeting was adjourned at 8:30 p.m.

The next Club activity is the picnic August 23 at WB9JMO.

Respectfully submitted:
Arne, KA9ZPY, Secretary

Sheboygan County Amateur Radio Club

Steve Meifert, KB9HKG, Secretary

1525 New Jersey Avenue • Sheboygan, WI 53081

The August 11, 1992 meeting was called to order at 7 p.m. by President Chad Christianson, N9HMR.

The minutes from the July meeting were read by Steve, KB9HKG, and Luiz, KA9HUF, gave his report on the Club's treasury.

All the new Hams from the last novice class have since received their licenses. They are Lynne, KB9ICG; Josh, KB9ICH; Charlie, KB9ICI; also a few who have already upgraded to Technician: Eric, KB9IBT; Bob KB9IBU; and Gregg N9PZV. Congratulations again!

Volunteers were enlisted for the Monday night 2 Meter Net Control, and there was no report from the Technical Committee.

OLD BUSINESS

For their work at the Heritage Square Criterium bike races, a special thanks goes out to: Net Control Penny, KB9BJM; Jim, WA9SNU; Ruth, WB9ORO; Adrian, WB9CXY; Ron N9ITM; and Tom, AA9-BJ. The races went well, and Penny even invented a new Q signal! If you're curious, ask her at the next meeting.

A special thanks also to those who worked at the Holland Fest Parade. Everything went well from the line up until the last unit cleared the route. Thanks to: Net Control Penny, KB9BJM; Luiz, KA9HUF; Ron, N9ITM; Tom, AA9BJ; Gregg N9PZV, Kenn N9GXP, Chris, KB9HQV; and Steve, KB9HKG.

NEW BUSINESS

Thanks to Joe Ash, W9ODV, for donating some older issues of *QST* for the new Hams.

The Fox Hunt is still on for September 26, at 1 p.m. (If you want to learn a little about Fox Hunting, be sure to attend the September meeting. Lyle, WE9R, will give a presentation on equipment and tactics.) Following the Hunt, there will be a picnic at Cleveland Park in Sheboygan for all. If you plan on going remember to bring a lawn chair.

The prestigious FLAT TUBE AWARD, the Club's traveling trophy of excellence, was presented to Lyle, WE9R, for his outstanding effort and achievement, and for the time and equipment he has devoted to ensure us a very dependable repeater. Along with this award goes our highest regards! Well, Lyle, at least until next month (HI).

A survey is being conducted to learn a little more about the membership. It will be mailed to all members, along with an updated member list. It would be appreciated if you would return your survey by the October meeting.

The Club's Activity Award is presented monthly to the Member who has shown proof of the most number of contacts for the preceding month. Bring your log to each meeting for verification. If you have any questions, see Penny, KB9BJM.

The KR9S Packet Cluster has moved from 223.46 MHz to 223.42 MHz.

The meeting was adjourned at 7:34 p.m.

Following the meeting was a live demonstration of a Tesla Coil by Charlie Murphy, KB9ICI, and a video biography of Nikola Tesla by Vic Hoffman, W9IDG, and Luiz Cordeiro, KA9HUF. Everyone enjoyed the very interesting program.

Respectfully submitted,
Steve Meifert, KB9HKG, Secretary

Northern Wisconsin Radio Club

- Since 1923 -

Steve Hart, KA9OMC, Secretary

Route 1, Box 54 • Knapp, WI 54749

Greetings, NWRC members and guests.

The Northern Wisconsin Radio Club will celebrate 69 years and kick off the beginning of the 1993 year on September 22. The banquet will be held at 7:30 p.m. at the Holiday Inn at 1202 West Clairemont Avenue in Eau Claire, WI. Members and guests are welcome to attend. All reservations must be made through Steve Hart, KA9OMC, Route 1, Box 54, Knapp, WI 54749, telephone (715) 665-2374, and should be received by September 1. Due to the slow response, you may wish to call me to see if some late reservations may be available. Guest speaker Lois Ristow from the Beaver Creek Reserve at Fall Creek will discuss her volunteer work with habitat. Hope to see you there!

President Ken, KE9CS, has totalled up the Field Day contacts. 405 QSOs were made on the 2, 10, 15, 20, 40, 75, and 80 meter bands. The activity was well attended, and our thanks to the Eau Claire club for bringing their club trailer and generator.

It was great having you all stop by

the Eau Claire Swapfest table that we set up. My thanks to Jim, WB9YMB, and Dan, N9HME, for helping out with the sale. Proceeds, including a *Who's Who* book to KE9CS, totalled \$35.00.

We regret to inform the group of the passing of member Darrell McMahon, N9HQL. His passing was unexpected, and a great loss to many. Darrell was known by many for love and entertaining ability of Country and Western music. Darrell had recently passed his Extra Class exam, and was a regular contact on the "Know it All Net."

The election of officers will be held on the 27th of October. If you wish to serve the club, please let the officers know in advance of the meeting, or be available that evening. Meeting time is 7:30 p.m. at the Peppermill Restaurant in the T-Bird Mall in Menomonie. Continued discussion of the proposed constitution and a possible vote are planned.

Steve Hart, KA9OMC
NWRC Secretary/Treasurer

Hurricane Albert

As we finish preparing this issue for printing, Hurricane Albert has trashed parts of southern Florida and is heading toward landfall again on the southern coast of the U.S. If you assisted with emergency or welfare communications efforts during or after the hurricane, BSSS readers would like to read your story. Please send it to Jim Romelfanger, BSSS Editor, 412½ Ash Street, Baraboo, WI 53913. Thanks!

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At University of Wisconsin, Stevens Point



WB9QFW 2-Meter Repeater 146.07-67 and Club Station

P. O. Box 847 • Plover, WI 54467

The meeting was called to order by Art, N9BCA, at 7:58 local time. Eleven members and guests were present, the roll being as follows:

Art Wysocki	N9BCA
Deb Kroll	N9EIL
Frank Podach	N9JQR
Bob Baird	W9NN
Frank Guth	W9BCC
Mike Pagel	KA9LAQ
Jim Benak	KA9ACE
Gene Kroll	KE9MA
Mary Eiden	KA9FAS
Al Mallek	K9WVM
John Eveimeur (?)	N9MDH

The first topic up was a discussion of liability insurance. Those looking into the issue were not present but, after a discussion of previous information, it was decided to drop the idea, at least.

It looks like Field Day '93 may be back on the river near Bob's QTH, W9NN, due to an offer by one of his neighbors to use a vacant lot. More info as it becomes available.

Mike, KA9LAQ, reported that he was approached by the Telecommunications Department, seeking information on the .67 machine. It seems they have been getting interference on their microwave link, and were wondering about our setup. The interference was extremely

broadbanded which, some suggested, might indicate scientific/medical RFI. The F.C.C. was investigating; more info as it becomes available.

All present were reminded of the Fox Hunt that will be held August 16, starting in the parking lot across from the club station, and of the get-together later at W9NN's house.

We were then brought up to date on the progress of the search for a rotor for the Field Day/emergency tower. Frank, W9BCC, reported that he had a line on a used rotor, HAM MII, and he and Al, K9WVM, were going to inspect it the next day and decide if it was a suitable purchase. It has since been purchased for \$100.00.

The last item of business was the possibility of the club buying coax in bulk for sale to club members. Art, N9BCA, will check around for prices and report back to the club.

Don't forget that the September meeting is our annual election of officers. Come prepared to vote (and volunteer your services?). The meeting will be at 7:30 on September 9 in Room A-109 of the Science Building, UWSP.

FYI: The meeting room for our next few meetings will be A-109, September-December.

73 DE KA9ACE

Eau Claire Amateur Radio Club

Don Franzmann, W9NFJ, Secretary

2728 Marilyn Drive • Eau Claire, WI 54701

MEETING MINUTES AUGUST 11, 1992

The meeting was called to order by President Bill Jablonske, W9NNS, at 7:31 p.m. The secretary's and treasurer's reports were read and approved. Within the treasurer's report was the financial statement covering our recent Hamfest.

Carl, W9NW, reported that 60 people were tested at the Hamfest, which kept our examiners really busy.

An extensive and detailed discussion of the Hamfest followed, with critiques and suggestions for improvements being duly noted by President Jablonske.

Introduction of members and guests followed.

The matter of repeater output problems was brought up. Bob, W9BAR,

stated that he would check into this.

President Jablonske then led a discussion regarding the proposal for a super-link to the west.

Jon, KW9KW, reported on the proposal of Eau Claire County, which included an offer to purchase some additional equipment. This matter will be taken up again at a future meeting.

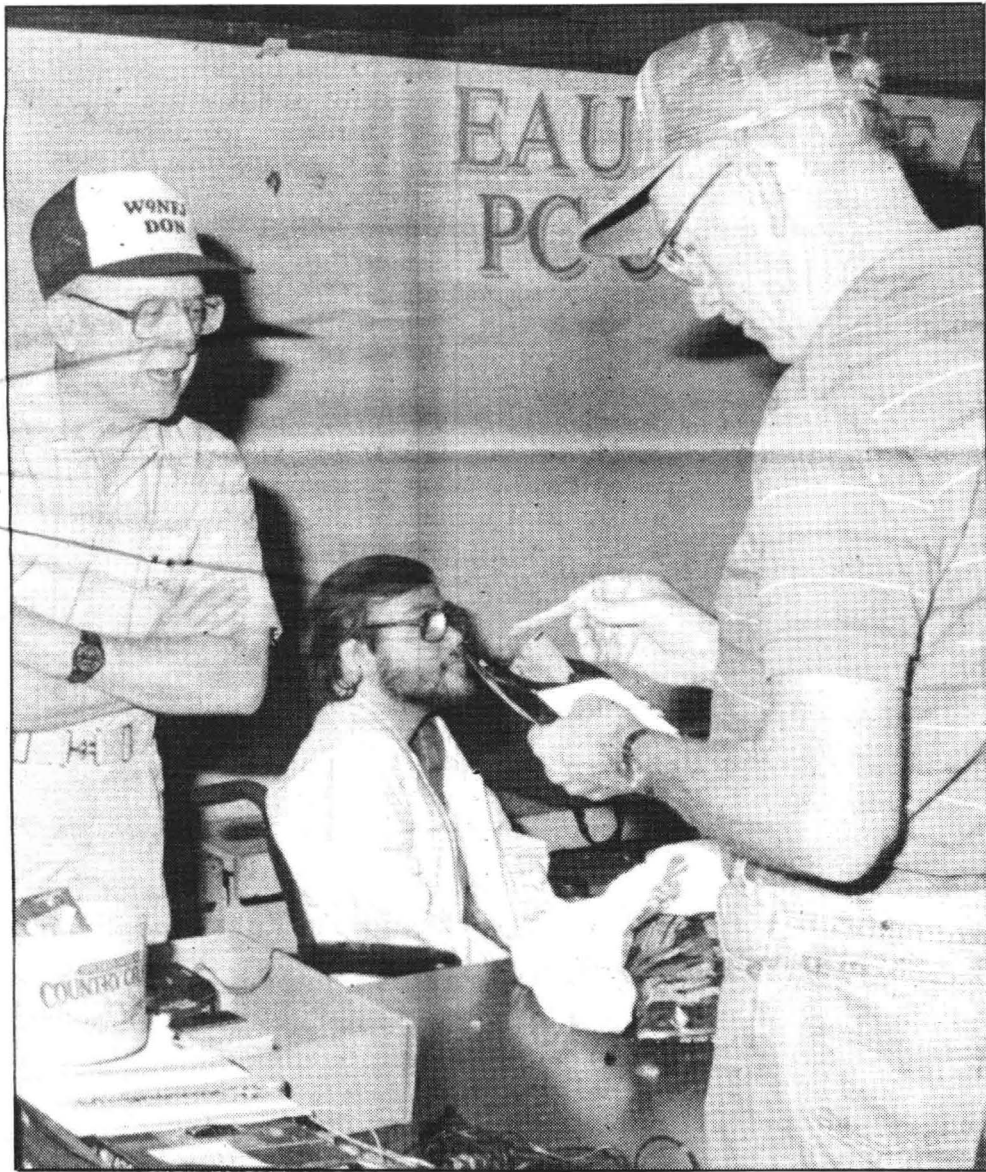
Clarence, N9NXW, invited club members to the joint picnic of the Riverland Amateur Radio Club and the Winona Amateur Radio Club, to be held this coming Saturday at Perrot State Park.

The lunch committee for next month is Fred, KC9NN, and Bill, W9NNS.

The meeting was adjourned at 8:32 p.m.

Respectfully submitted:
Don Franzmann, W9NFJ, Secretary

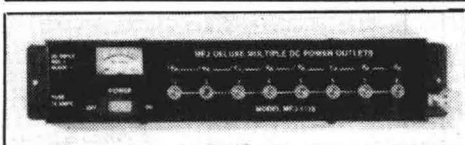
Eau Claire Swapfest Presents a Learning Opportunity



Eau Claire Amateur Radio Club Secretary Don Franzmann, W9NFJ, left, perfects his sales skills on Gordon Englund, N9FLN.

- Photo by Ralph Carlson/WB9RUK

New Products



MFJ-1116 Deluxe DC Power Outlet

MFJ Enterprises, Inc. announces the new MFJ-1116 Deluxe DC Power Outlet, with voltmeter, switch, and fuse, for only \$44.95.

If you need a neat and easy way to distribute 12 VDC to various transceivers and accessories, the new MFJ-1116 is the ideal answer! This multiple DC power outlet strip features eight terminals for connecting rigs and keyers, TNCs, tuners, etc. Output voltage is continuously monitored on its built-in voltmeter.

The MFJ-1116 has a heavy-duty master power switch and 15 amp fuse. Each of its eight outlets utilize heavy-duty five-way binding posts with standard spacing for dual banana jacks. Outlets are also RF bypassed. The strip measures 2.75 X 13.5 X 2.50 inches (H,W,D).

The MFJ-1116 can be installed on the rear of your desk and be used to eliminate "haywires." It's perfect for experimenters and clean station enthusiasts alike! The built-in meter is a great aid for studying loads.

It comes with MFJ's one full year unconditional guarantee.

For more information, or to order, contact any MFJ dealer or MFJ Enterprises, Inc., P.O. Box 494, Mississippi State MS 39762, or call (601) 323-5869, FAX (601) 323-6551, TELEX (601) 323-6551, or order toll-free at (800) 647-1800.

- MFJ news release

STS-47/SAREX Liftoff Set for September 11



Astronaut Richard N. Richards, KB5SIW, mission commander for the STS-50 mission flown from June 25 to July 9, 1992, stands by a monitor displaying a group of elementary school pupils who were among the many students and others on Earth who communicated with members aboard the orbiting Space Shuttle Columbia.

- NASA photo

NEWINGTON, CT - Students from California, Hawaii, and North Carolina are preparing to make the ultimate long-distance hookup in September with astronauts aboard the Space Shuttle Endeavour. The mission is tentatively scheduled for a September 11 lift-off from Kennedy Space Center at Cape Canaveral, Florida.

The Endeavour will carry a full array of ham radio gear, including a 2-meter voice transceiver and packet radio. Control operators for the shuttle ham radio equipment are Dr. Jay Apt, N5QWL, and Dr. Mamoru Mohri, 7L2NJY. This is the second time Apt has participated in a SAREX mission. In April, 1991, Apt was one of five Amateur Radio operators (NASA's first all-ham crew) aboard the Space Shuttle Atlantis. During that mission, Apt talked to students around the world, and made history by receiving the first fast-scan Amateur television images from Earth.

"This is the third SAREX mission in 1992," says Rosalie White, American Radio Relay League educational activities manager. "The previous missions, in March and June, attracted worldwide attention. SAREX has helped thousands of children learn about the space program. Best of all, talking to astronauts in space provides kids with an experience they'll never forget."

NASA has scheduled several four to eight minute "windows" for the crew to talk with the students. Routine SAREX transmissions may be monitored on 145.55 MHz. School contacts are on another frequency.

Attention Participating Clubs

- The minutes of the Mancorad Club's meeting do not appear in this issue of *Badger State Smoke Signals*. They had not been received at press time.

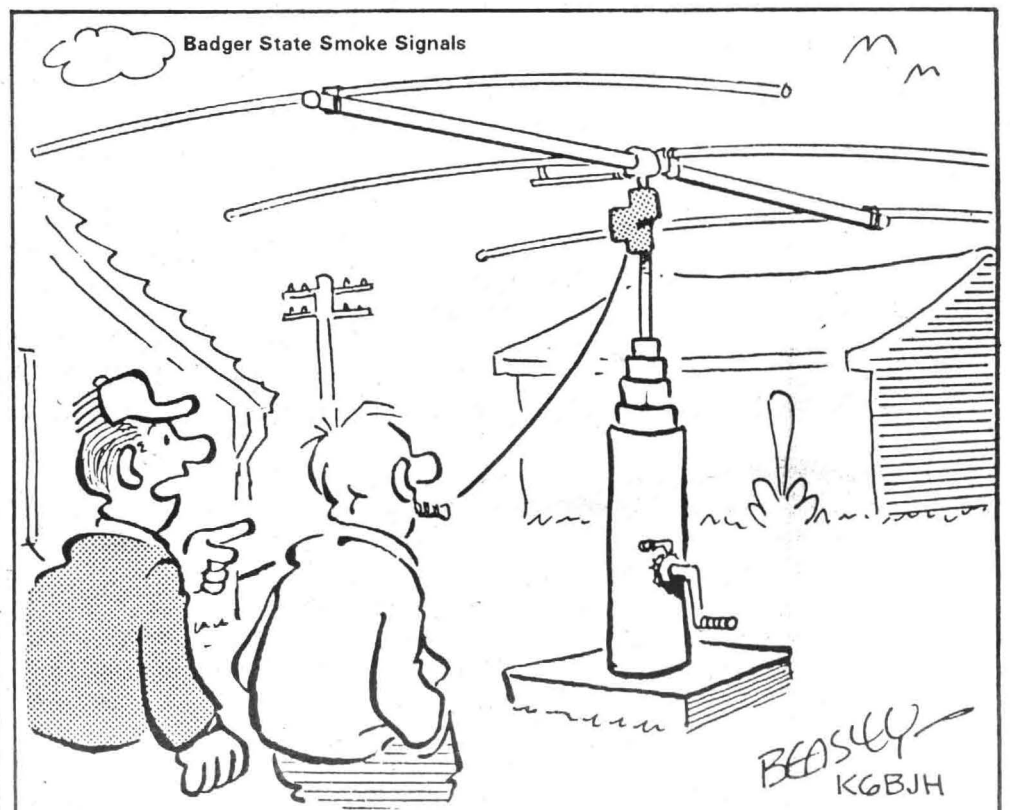
- Club secretaries are reminded that, in order to be as certain as possible that club information is published, they should make every possible effort to have the information in the mail to K9ZZ *no later than five days after the club's meeting*. We make every effort to get club info in the paper, but we do need your help if we are to keep our commitment to our participating clubs.

- If your club is not a participant in *Badger State Smoke Signals*, and if you

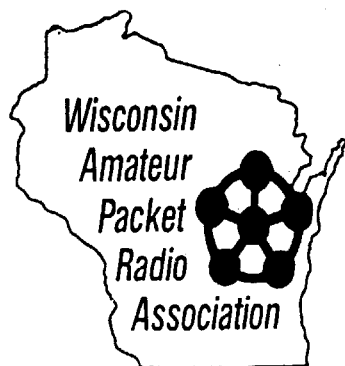
would like more information about participation, contact Publisher Ken Ebner, K9EN, 822 Wauona Tr., Portage, WI 53901, phone (608) 742-3560. One of the benefits of club participation is a substantially reduced rate for BSSS subscriptions.

- We thank those secretaries who have been so dependable in sending their club's information promptly. You make our job on this end *much* easier. We can't print a gold star for you, so here's the next best thing we can offer: ☺!

- We can use MS-DOS ASCII files on disk. If you send your information this way, please be sure you *always* send hard copy, too. We can also convert from a number of other word processor formats. We use Word Perfect 5.1 at the BSSS end.



JIM OPERATES WITH IT ONE TURN HIGHER EACH DAY--- HE FIGURES BY THE TIME HE GETS IT UP FIFTY FEET HE'LL BE OVER HIS MIKE FRIGHT



THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association (WAPRA)

William Schroeder, W9ZBD
4247 Forest Point Drive • Rhinelander, WI 54501

Steve Loeffler, WB9ZRE, Editor, 123 W. Oshkosh St., Ripon, WI 54971

Hello All,

Name here is A.J. I am the sysop of N9ONP. I have set up an MSYS bbs running version 1.10. Please feel free to connect and check it out. There are some bugs that need to be worked out of this system, but any messages left, will be forwarded. There are a few files under the W command, but because the hard drive has not arrived, there is not much to choose from. For starters, this bbs will be located on 144.97, accessible thru WIGLK, but as the system grows better, it may be relocated. I hope you all enjoy this service, and I hope to become part of the backbone. 73 de A.J. — SYSOP —

New Things at WB9TYT

As most of you can see, I have brought my BBS back on line, but in a much different configuration... I do not have any HF ports & do not plan for any in the future.. Instead, I plan to use this BBS as a tool in my efforts to both observe & upgrade the various links & nodes..

I have also been asked many times for some access to the callbook & the mods database... So, I think we can all benefit.. REQQTH, REQFIL, & REQDIR are again active & all the files will be back on line ASAP.. I am currently running 4 ports on the BBS and all use the call of WB9TYT for user access. You can use either WB9TYT or TYT as an alias for digipeating.

Port 0 is a 1200 baud port on 145.690
Users only, No BBS's
Port 1 is a 2400 baud port on 222.190
Users & BBS's
Port 2 is a 2400 baud port on 145.690
Users only, No BBS's
Port 3 is a 4800 baud port on 446.100
BBS only Port

TCP/IP is accessible from all 4 ports. I am not very knowledgeable with TCP/IP, but plan to learn more about that Protocol. Let me know if I can be of any help here...

Both WB9TYT-2 (#SAND) & WB9TYT-3 (WITYT) have been disconnected & are not in service.. Need the calls for another project...

9600 Baud at WA9KEC

Hi Folks,

For those of you who would like to play at 9600 baud, I have put a mini-bbs on the air on 145.59 mhz. As soon as I can change from four ports to six ports on the big bbs, the 9600 baud will become a port on the MSYS machine. The radio is a Icom 271-H set for 25 watts on a Diamond X-50-A antenna. The tnc is a MFJ-1270B with a K9NG modem. Enjoy & 73, Hawk WA9KEC

Need Help From Blind Packet Operators

I would like to hear from any blind packeteers who are using Jaws in conjunction with a packet program. Please supply details of any Jaws macros which you created in order to get the program talking. I am currently using the Braille 'N Speak to access packet.

Mike - WB5ADC @ K5QNE.MS.USA.NA

Those interested in helping blind hams use packet or other computers will surely find this book helpful: "Library Technology for Visually and Physically Impaired Patrons" by Barbara T. Mates. Published by Meckler, 1991. Check your

local library for a copy or availability via intra-library loan. The chapter on Audio Output is very good. The following text-to-speech synthesizers are discussed: Accent-PC, DECTalk, Echo PC, Prose 4000, SynPhonix, Syntha-Voice, and Nomad. There are still others, and the book refers to Braille keyboards/displays, OCRs, etc.

Allan - W6MEO @ WX3K.#NOCAL.CA.USA.NA

Binary transfers with BayCom and PMP

Finally, a solution to those of you running BAYCOM, Poor Man's Packet (PMP), or if you want to do program storage and transfer using MSYS Packet Bulletin Boards: BSQ Binary Squeeze.

BSQ is a program designed to allow transfer of binary files via packet. It converts a binary file to printable ASCII characters, performing data compression where possible. The resulting file may be transmitted (in "conversational" mode) and reconverted (again using BSQ) to binary at the other end. It may also be included in packet mail.

BSQ is available on several PBBs systems in ASCII and binary form, versions of the latter running on IBM PCs,XTs,ATs,PS/2s and other MSDOS based computers. It is implemented in "vanilla" C, and should be easily portable to other environments.

NB: Transfer of large files on a busy packet channel is both *** slow and somewhat antisocial. Try to confine big transfers *** to lightly-used times and/or frequencies!

USAGE: bsq <options> file.ext [outname]
reads binary file.ext, writes file.bsq (or outname if specified). EXAMPLE: bsq GAME.COM converts GAME.COM to GAME.BSQ (ASCII file)

bsq <options> file.bsq [outname]
reads file.bsq, writes file whose name is same as original (or outname, if specified).

EXAMPLE: bsq GAME.BSQ converts GAME.BSQ to GAME.COM (binary file) BSQ default output is always in the current directory. WARNING: existing files whose name conflicts with the output file name are overwritten.

<options> may include:

- b Bootstrap mode. Does simple bit-stuffing, no data compression. Output file suitable for simple BASIC program BSQBOOT.BAS.
- o Old mode. Used to specify creation of .BSQ files compatible with earlier versions.

You may "bootstrap" BSQ to your machine, over the air, this way:

If you have an MSDOS machine and Microsoft BASIC or equivalent, you may download BSQBOOT.BAS along with BSQ.BSQ (17K!), BSQBOOT.BAS reads BSQ.BSQ, and writes the executable file BSQ.COM. This process runs VERY slowly (about 10 minutes on an IBM PC/XT!).

NOTES:

1. Each line of a .BSQ file is the same length (72 chars) and consists entirely of visible characters. If your .BSQ file gets mutilated in simple ways during packet transfer (eg, by addition of a TNC line like "*** CONNECT REQUEST: NSLID") you may be able to fix it using any text editor. BSQ will warn you if it is suspicious of the input file.

2. Several incompatible generations of BSQ have already evolved. Newer versions can read & convert old .BSQ files, but old versions may be

unable to convert new .BSQ files properly. The -o option is intended to force newer BSQ versions to write old-format files; however, use of -o involves some inefficiency and loss of certain features.

***** NOTE: The files BSQ.BSQ, BSQ.DOC, and BSQBOOT.BAS are available on the following PBBs: N2IVL,N2EBT,NY2S. The file BSQ.COM is available on NY2S all PBBs are .#NLI.NY.USA.NA

Keyboard-to-Keyboard Packet on 10 MHz

Those of you interested in HF packet should check around 10.145 MHz. Due to decreasing propagation conditions on 10, 15 and 20 meters, more operators are hanging around 10 MHz for 'live' packet connects.

Heath HK-21 Hardware Flow Control

A short time ago I had the need to have full hardware flow control on a Heathkit HK-21 pocket tnc. Normally hardware flow control is handled via pins 4 & 5 (RTS/CTS) on a DB25 connection. That is when the TNC pulls the CTS line low the computer/terminal stops sending data. When the computer/terminal pulls the RTS line low the TNC stops transmitting data. The problem is that on the Heathkit HK-21 TNC pin 4 (RTS) is not used by the TNC. However Heath did provide a means to obtain full hardware flow control. On the HK-21 TNC, pin 20 functions exactly the same as RTS. That is when pin 20 is pulled low the TNC stops sending data and buffers it until pin 20 goes high again. Therefore it is a simple matter of rewiring the cable connector at the TNC end.

Computer (DTE)		HK-21 (DCE)
DB25		DB25
Shield/GND	Pin 1 <->	Pin 1 Shield/GND
Trans. data	Pin 2 ->	Pin 2 Trans. data
Rec. data	Pin 3 <-	Pin 3 Rec. data
Req. to send	Pin 4 ->	Pin 20 DTR
Clear to send	Pin 5 <-	Pin 5 Clear to send
Data set ready	Pin 6 <-	Pin 6 DTS
Common	Pin 7 <->	Pin 7 Common
Carrier detect	Pin 8 <-	Pin 8 Carrier det.
Data term ready	Pin 20 ->	NC

Note: On the HK-21 TNC pin 6 (DSR) and pin 8 (CD) are tied high. On other TNC's pin 8 (carrier detect) goes high when a connection is established with another TNC. AL - KT4F

HeathKit Scope / TNC Warning

All Heathkit monitoring scopes, commonly used for RITY/AMTOR tuning, must have .01 ceramic capacitors installed on the mark space leads either inside the scope or the TNC. It is possible for a component inside of the scope to fail, impressing 150 or more VDC on the mark/space leads resulting in damage the TNC.

In order for a Heathkit scope to work with the PK-232 installation of the .01 ceramic capacitors is a mandatory modification to enable the scope to display a decent ellipse reading.

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RACINE, WISCONSIN - ARRL/VEC
Monthly, first Sat., except Jan., July, and Aug.
Exams are given 9:00 to 11:00 a.m. at the Red Cross Building, 4521 Taylor Avenue, Racine. Walkins are permitted. Inquiries and registra-tions should be directed to William Firchow, Jr., NW9P, 1912 27th Street, Kenosha, WI 53140, telephone (414) 658-8390.

TOMAHAWK, WI
Last Saturday of every month. Jan. thru Oct.
Tomahawk Volunteer Examiners (ARRL/VEC). Tomahawk, WI. No preregistration required, but appointment would be appreciated. Registration at 8:30 a.m. and testings starts at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Greg Garner, WA9W, 4088 Highway 51, Harshaw, WI 54529. Tele- phone (715) 453-7096.

STEVENS POINT, WI - ARRL/VEC
December 5, 1992
Contact: Joe Larson, (715) 344-1182 (eve).

APPLETON, WI - ARRL/VEC
Contact: Larry Siebers, (414) 788-3823

ONALASKA, WI
November 9, 1992
Contact: Rick Williams, KV9U, 534 Troy St., Onalaska, WI 54650. (608) 783-8028.

DUBUQUE, IOWA - ARRL/VEC
1992 examination dates: September 7, and November 21. The Great River ARC VEs are now field-stocked with examinations, which means that retests can be given immediately. Exams are held at 9 a.m. at the Central Fire Station, 9th and Central, Dubuque. Use the basement entrance on 9th Street. Talkins are on 147.84/24, 147.63/03, and 146.295/895 repeaters. Contact Mike Jozefowicz, NSOU, 2735 Hockory Hill, Du-buque, Iowa 52001, (319) 582-8563.

LOVES PARK, IL
Third Saturday of every month. Northern Illinois Volunteer Examiners (DeVry VEC). Held at North Suburban District Library, 6340 North Second St. (Hwy. 251), Loves Park, IL. Contact: Paul K. Dean, WB9HCZ, (815) 987-6754.

Yellow Thunder Amateur Radio Club

Harry Westlund, K9EHJ, Secretary

K9ODK
WB9FDZ

720 Jefferson Street • Baraboo, WI 53913



The August 12, 1992 meeting of the Yellow Thunder Amateur Radio Club, Inc., was called to order at 8:29 p.m. by the Vice President, William Klinkner, N9KXX.

The minutes of the July meeting were ap- proved as published in the BSSS.

No Treasurers reports was given.

New Business: The list of nominees of club officers for the up coming year, as offered by the Executive Committee, was presented as fol- lows:

President - Robert Sauvan, WT9Q
Vice President - William Klinkner, N9KXX
Treasurer - James Decker, WB9UQT
Secretary - Raymond Matlosz, N9LMZ

L.J. hemmer, WB9TFJ, mad a motion to close the nominations and the motion was seconded by Steve Schwoegler, WB9RNL. With no objections, the slate was accepted.

L.J. Hemmer, WB9TFJ, made a motion to adjourn the meeting and Harry Mayland, K9FFT seconded the motion. The motion passed and the meeting was adjourned at 8:34 p.m.

Respectfully submitted,
Harry Westlund, K9EHJ

The meeting was cut short so that we could discuss the results and the happenings of this evening's fox hunt.

The results of the hunt were as follows:

1st place team:
Steve Schwoegler, WB9RNL
Raymond Matloz, N9LMZ
2nd place team:
Steve Polishinski, WB9YSD
Jim Romelfanger, K9ZZ
John Baesemann, N9PQP

3rd place team:

L.J. Hemmer, WB9TFJ
James Decker, WB9UQT
Harry Mayland, K9FFT
Rhobert Hemmer, N9LKX

The next meeting of the YTARC will be held on September 17, 1992 in room 14 of the Baraboo Civic Center. The election of officers for the 1992/93 year will be held.

The following members and guests were present for the August meeting:

Don Holcomb, WB4FEO	Baraboo
Ellen Holcomb	Baraboo
Harry Mayland, K9FFT	Baraboo
Harry Westlund, K9EHJ	Baraboo
Jim Decker, WB9UQT	Baraboo
John Baesemann, N9PQP	Baraboo
L.J. Hemmer, WB9TFJ	Baraboo
Rohbert Hemmer, N9LKX	Baraboo
Jim Paul, N9LKY	Merrimac
George G. Gabay	New Lisbon
Mark Snyder, NOMVV	North Freedom
Ken Ebnetter, K9EN	Portage
Joseph J. Rowland, N9PRF	Portage
Jack Kirner, N9LKZ	Prairie du Sac
John P McDonough Jr., KB9HIT	Reedsburg
Raymond J Matlosz, N9MLZ	Reedsburg
Tom Harrison, N9PQJ	Reedsburg
Bill Klinkner, N9KXX	Sauk City
Jim Pugh, W3VZJ	Sauk City
Le Roy Ganser	Sauk City
Pat Kirner	Sauk City
Paul Snyder, KB9FGI	Sauk City
Tom Thomson, N9LLF	Sauk City
Steve Polishinski, WB9YSD	Sun Prairie
Steven R Schwoegler, WB9RNL	Wisconsin Dells

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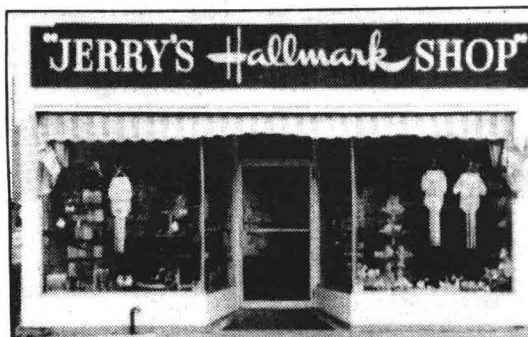
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Jerry's Hallmark Shop and Simply Amish are at 516 Oak Street and 512 Oak Street in Baraboo, on the east side of Baraboo's historic courthouse square.



YTARC's Intrepid Fox Hunters

Two of the hunting teams for the Yellow Thunder ARC's Fox Hunt on August 15 prepare for their search. In the photo at left, Bill Klinkner, N9KXX, at left, holds the mast of his loop antenna as Steve Schwoegler, WB9RNL, center, discusses the hunt with Bill. The fellow at right is un- identified. In the photo at right, Jim Decker, WB9-UQT, looking toward the camera below the beam antenna readies his team. Hunting with Jim were L.J. Hemmer, WB9TFJ, L.J.'s son Rohbert, N9LKX, and Harry Mayland, K9FFT. The hidden transmitter was manned by Jack Kirner, N9LKZ, who was behind a maintenance building at Ochsner Park on Baraboo's west side.



The Badger State Smoke Signals Shoppers' Guide

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414-687-0572

EXAM INFO:
Larry, KD9IA,
414-788-3823, or
Don, NB9J,
414-687-0572

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"Bob" - 414-684-5352 (Nights) "John" - 414-682-9151 (Days)

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Info: Art Wysocki, N9BCA 715-344-2984
3356 April Lane Stevens Point, WI 54481

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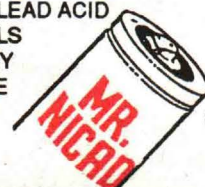
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